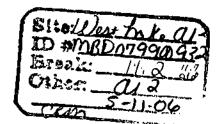


Global Presence Personal Attention



Ms. Cheryle Micinski EPA Region VII - Superfund 901 5th Street Kansas City, Kansas 66101

May 11, 2006

Dear Ms. Micinski:

Permit Information, Bridgeton Landfill and closed Demolition Landfill, Bridgeton, Missouri

Pursuant to a request from Dan Wall, EPA Project Manager for West Lake Landfill Operable Unit 2, enclosed is Permit information associated with the Bridgeton Landfill and the closed Demolition Landfill. The enclosure includes information available to Herst & Associates, Inc.

We will scan the Permit information and forward a diskette in the near future.

If you have any questions, please contact the undersigned.

Sincerely,

Herst & Associates, Inc.

Id Alex

Ward Herst

Managing Director

Cc:

Dan Wall - EPA (w/o enclosure)

Victoria Warren – AWIN Rick Walker – AWIN Allen Steinkamp - AWIN

Mike Hockley - Spencer, Fane, Britt, & Browne

40241275

SUPERFUND RECORDS

Permit Information

Bridgeton Landfill and Closed Demolition Landfill

Bridgeton, Missouri

May 2006

HERST & ASSOCIATES, INC.*

4630 South Highway 94 North Outer Road St. Charles, Missouri 63304 Telephone: (636) 939-9111 Facsimile: (636) 939-9757 Missouri Department of Natural Resources
Facility Operating Permit
Permit No. 118912

DEPARTMENT OF NATURAL RESOURCES

www.dnr.state.pio.us

March 1, 2004

CERTIFIED MAIL # 7002 0860 0007 6967 9692 RETURN RECEIPT REQUESTED

Rodney T. Bloese, R.G., L.P.G. Bridgeton Sanitary Landfill, L.L.C. Allied Waste Industries, Inc. 13570 St. Charles Rock Road Bridgeton, MO 63044

RE: Groundwater Sampling and Statistical Analysis for Bridgeton Sanitary Landfill, L.L.C., Permit Number 118912, St. Louis County

Dear Mr. Bloese:

The Missouri Department of Natural Resources' Solid Waste Management Program (SWMP) has reviewed groundwater monitoring data through the sampling event of November 2003, and the following documents:

- The statistical evaluation letter dated February 4, 2004, and received on February 5, 2004, is from Steve Jett, R.G., Senior Hydrogeologist, Herst & Associates, Inc., and Ward E. Herst, R.G., Managing Director, Herst & Associates, Inc.
- The attachment to the letter of item 1 above, which is entitled, <u>Ground Water Statistical Analysis</u>
 Report, <u>November 2003 Sampling Event</u>, <u>Bridgeton Sanitary Landfill</u>, <u>L.L.C.</u>, <u>Bridgeton</u>, <u>Missouri</u>,
 dated February 2004 and received February 5, 2004, prepared by Herst & Associates, Inc., on behalf
 of Bridgeton Sanitary Landfill, L.L.C.

The department's SWMP issued a November 22, 1999, conditioned statistical analysis plan (SAP) approval letter for the "Statistical Analysis Plan, Bridgeton Sanitary Landfill, L.L.C., Missouri," by Herst & Associates, Inc., for the Bridgeton Sanitary Landfill, dated November 1999 and received November 17, 1999:

Bridgeton Sanitary Landfill, L.L.C. is performing intra-well prediction interval comparisons for an inward gradient site where the upgradient monitoring wells are the compliance wells.

Bridgeton Sanitary Landfill, L.L.C. has stated - per our November 22, 1999, SAP approval letter, condition number 2, change to their SAP - that, "... a list will be made of any organic parameters with a detectable concentration." The department's SWMP addresses any detected organic parameter as a statistically significant increase (SSI).

Integrity and excellence in all we do

Rodney T. Bloese, R.G., L.P.G. Page 2

As per our last groundwater letter to Bridgeton Sanitary Landfill, we stated that detection monitoring may continue for upgradient monitoring well 114-AS. No further investigations are required concerning Chlorobenzene and 1,4-dichlorobenzene detections at upgradient monitoring well 114-AS. No other organic detects have been determined from any other monitoring wells for the November 2003 sampling event.

Thank you for your attention to statistical analysis reporting. Should you require further assistance or have questions pertaining to this document, please contact Mr. John R. Cramer of the Permits Unit at (573) 751-5401 or P.O. Box 176, Jefferson City, Missouri 65102-0176.

Sincerely,

SOLID WASTE MANAGEMENT PROGRAM

Russell I. Seedek, Jr., V.E. Chief, Permits Unit

RJS:jcs

c: Ward E. Herst, R.G., Managing Director, Herst & Associates, Inc.

Ms. Susan Taylor, St. Louis County Department of Health

Ms. Beth Marsala, Chief, Enforcement Section, Solid Waste Management Program

St. Louis Regional Office

STATE OF MISSOURI

Bob Holden, Covernor • Stephen M. Mahfood, Director

DEPARTMENT OF NATURAL RESOURCES

APR 04 2003

www.dor.state.mo.os

CERTIFIED MAIL # 7099 3220 0009 3709 4741 RETURN RECEIPT REQUESTED

Rodney T. Bloese, R.G., L.P.G. Bridgeton Sanitary Landfill, L.L.C. Allied Waste Industries, Inc. 12976 St. Charles Rock Road Bridgeton, MO 63044

RE: Groundwater Sampling and Statistical Analysis Responses for Bridgeton Sanitary Landfill, L.L.C., Permit Number 118912, St. Louis County

Dear Mr. Bloese:

The Missouri Department of Natural Resources' Solid Waste Management Program (SWMP) has reviewed the following document:

The letter identified as an alternate source demonstration with two sets of attachments (Attachment A, Time Series Plots, and Attachment B, Box and Whisker Plots) dated March 18, 2003, and received on March 19, 2003, is from Mr. Steve Jett, Senior Hydrogeologist, Herst & Associates, Inc., and Ward Herst, R.G., Managing Director, Herst & Associates, Inc.

For additional clarification, the only parameter/monitoring well combinations requiring alternate source demonstrations are the parameter/monitoring well combinations that have confirmed organic parameter detects. Organic parameter detects, first-time and confirmation samples, are statistically significant increases (SSIs). If the department's SWMP does not approve a SSI alternate source demonstration, then the department's SWMP will describe in writing the requirements for a groundwater assessment monitoring plan which may lead to the demonstration of an alternate source through execution of this plan.

We have agreed to additional groundwater monitoring of monitoring well 114-AS as part of assessment monitoring of chlorobenzene. We have also agreed to the additional gas monitoring around and from the headspace of 114-AS. We acknowledge the lack of any methane gas detection from around or in the headspace of 114-AS from your November 2002 sampling event report. All these assessment monitoring field data collecting techniques and possibly ones not yet considered may lead to identification of a non-landfill source or corrective action. The first-time detection of 1,4-dichlorobenzene at the low concentration of 5.5 micro-grams per liter (ug/L) in monitoring well 114-AS for the November 2002 sampling event has already been noted in our March 14, 2003 letter.

Areas of concern (AOCs) are from inorganic parameters statistical exceedances in upgradient of landfill monitoring wells. As a result of our reporting no significant trends in our <u>December 6, 2002 letter</u> on the May 2002 sampling event, based on Sen's Slope Analysis for trend in DUMPStat, we made the following statement:

Integrity and excellence in all we do

Bridgeton Sanitary Landfill, L.L.C. must continue to monitor the significant upward trend on confirmed AOCs. If a significant upward trend(s) develops over time for any fiture confirmed AOC parameter with at least ten (10) rounds (with outlier rounds removed) of background data, then a written work plan for evaluating the cause of this trend(s) will be submitted to the department's SWMP.

Because of our reporting of <u>no</u> significant trends through May 2002, we were not expecting to see any reporting from you on the trends the Mann-Kendall trend tests from your Sanitas showed. In our recently sent <u>March 14, 2003 letter</u> we altered the above wording as follows to show that regardless of who's so fiware found significant upward trends, we were not going to make a written evaluation of significant upward trends mandatory unless the department's SWMP requested it:

Bridgeton Sanitary Landfill, L.L.C. must continue to monitor the significant upward trend on confirmed AOCs. If a significant upward trend(s) develops over time for any future confirmed AOC parameter with at least ten (10) rounds (with outlier rounds removed) of background data, then a written work plan for evaluating the cause of this trend(s) may be required by the department's SWMP.

Please, note from the previous that "evaluation of the causes of inorganic parameters continued AOCs and significant upward trends" is not the same as an "alternate source demonstrations for organic parameter detects confirmed SSIs." Therefore in our recently sent March 14, 2003 letter we added the following statement:

A demonstration work plan and/or groundwater quality assessment monitoring program plan may not be required for any inorganic parameter/well combination unless there is a confirmed organic parameter detect for any monitoring well above the practical quantitation limit (POL).

Per this letter we now change the possibly misleading wording of this statement to the following, and apologize for any inconvenience:

A demonstration work plan as part of an alternate source demonstration and/or groundwater quality assessment monitoring program plan <u>may</u> be required for any inorganic parameter/well combination confirmed AOC if there is a confirmed organic parameter detect from the same monitoring well above the practical quantitation limit (PQL).

Looking at our DUMPStat time series plots in Attachment I to this letter, which would display a heading on each plot of "significant upward trend" if Sen's Slope Analysis had determined one, we certainly agree with the plausibility of your explanations for the confirmed AOCs of the following:

- 1. Magnesium at monitoring wells 105-SS and 106-SD.
- 2. Manganese at monitoring well 115-SS.
- 3. Sodium at monitoring 115-SS.

Rodney T. Bloese, R.G., L.P.G. Page 3

As can be seen from the time series plots, the last few data values of each plot show increases that, as discussed in a March 25, 2003, 10:11 A.M. conversation with Steve Jett of Herst & Associates, Inc., caused triggering of a weak significant upward trend with Mann-Kendall testing in Sanitas. Overall without these last few data values in each time series plot a significant upward trend is not recognizable. Even with the plausibility of your explanations for AOCs in sections 1.0 through 3.0 of the above referenced letter (and as listed above), continued detection monitoring of these identified parameter/monitoring well combinations is necessary as stated previously.

As stated previously in our <u>March 14, 2003 letter</u>, Bridgeton Sanitary Landfill, L.L.C. is performing intra-well prediction interval comparisons for an inward gradient site where the upgradient monitoring wells are the compliance wells.

We recommend strongly for the intra-well prediction interval analysis being utilized at this site, that all data causing trending be excluded for subsequent comparisons. If the particular inorganic parameter data has been trending historically for any well/parameter combination, then the intra-well prediction interval method may be used with caution until the upper prediction limit (UPL) is exceeded. When the UPL becomes exceeded with historically trending data, then every effort should be made before the next statistical comparison to exclude the background data causing the trending.

Thank you for your attention to statistical analysis reporting. Should you require further assistance or have questions pertaining to this document, please contact Mr. John R. Cramer, of the Permits Unit at (573) 751-5401, or P.O. Box 176, Jefferson City, Missouri 65102-0176.

Sincerely,

SOLID WASTE MANAGEMENT PROGRAM

Russell J. Seedyk, Jr., P.E. Chief, Pennits Unit

RJS:icd

Enclosure

c: Ward E. Herst, R.G., Managing Director, Herst & Associates, Inc.

Mr. Steve Jett, Senior Hydrogeologist, Herst & Associates, Inc.

Ms. Susan Taylor, St. Louis County Department of Health

Ms. Beth Marsala, Chief, Enforcement Section, Solid Waste Management Program

Joe Gillman, R.G., Chief, Environmental Assistance Unit, Geological Survey and Resource Assessment Division

Mr. Phil Schroeder, Chief, Permit Section, Water Pollution Control Program

St. Louis Regional Office

April 24, 2002

CERTIFIED MAIL # 7099 3220 0009 3708 7200 RETRUN RECEIPT REQUESTED

Rodney T. Bloese, R.G., L.P.G. Bridgeton Sanitary Landfill, L.L.C. Allied Waste Industries, Inc. 13570 St. Charles Rock Road Bridgeton, MO 63044

RE: Groundwater Alternate Source Demonstration for Bridgeton Sanitary Landfill, L.L.C., Permit Number 118912, St. Louis County

Dear Mr. Bloese:

The Missouri Department of Natural Resources' Solid Waste Management Program (SWMP) has previously reviewed, in our February 6, 2002 letter, groundwater monitoring data through the sampling event of November 2001 and has reviewed the following document:

A letter report entitled, "Alternative Source Demonstration, Bridgeton Sanitary Landfill, Bridgeton, Missouri," dated March 11, 2002, and received March 12, 2002, prepared by Herst & Associates, Inc., on behalf of Bridgeton Sanitary Landfill.

As previously stated, any <u>detected</u> organic parameter is not required to show statistical exceedance or trend in order to require resampling verification and demonstration. Also this statistical analytical data for a confirmed organic detect is not an acceptable demonstration.

Because, as you indicated, chlorobenzene was shown to be detected in the November 2001 data at its PQL of 5 ug/L in monitoring well 114-AS, please verify with the laboratory whether or not this value should have been flagged as a non-detect. Please provide us with the results of this laboratory verification. If this value was actually a detection value for chlorobenzene, please provide resampling detection verification with the May 2002 sampling event.

Upgradient migration is possible for any confirmed contaminant via aquifer contaminant transport and the existing equations that govern this behavior. Acceptable alternate source demonstration for any confirmed organic detect will involve finding and providing data showing/describing an alternate source.

Rodney T. Bloese, R.G., L.P.G. Page 2

Your identification of monitoring well 114-AS as "PZ-114-AS" is inconsistent with electronically submitted/referenced data. All of your future correspondence must use the electronically submitted (and previously listed in our February 6, 2002, letter) monitoring well identifications. Also the piezometer notation, "PZ" is abandoned because of the present "monitored-for-chemical-data" status of these wells.

Again as previously stated in our February 6, 2002, letter the following procedures must be followed for any area of concern (AOC) found in the groundwater:

Bridgeton Sanitary Landfill, L.L.C. must continue to monitor the significant upward trend on confirmed AOCs. If a significant upward trend(s) develops over time for any future confirmed AOC parameter with at least ten (10) rounds (with outlier rounds removed) of background data, then a written work plan for evaluating the cause of this trend(s) will be submitted to the department's SWMP.

Thank you for your attention to statistical analysis reporting. Should you require further assistance or have questions pertaining to this document, please contact Mr. John R. Cramer, of the Permits Unit at (573) 751-5401 or at P.O. Box 176, Jefferson City, Missouri 65102.

Sincerely,

SOLID WASTE MANAGEMENT PROGRAM

Russell J. Seedyk, Jr., P.E.

Chief, Permits Unit

RJS:jcb

c: Ward E. Herst, R.G., Managing Director, Herst & Associates, Inc.

Ms. Susan Taylor, St. Louis County Department of Health

Ms. Beth Marsala, Chief, Enforcement Section, Solid Waste Management Program

Joe Gillman, R.G., Chief, Environmental Assistance Unit, Geological Survey

and Resource Assessment Division

Mr. Phil Schroeder, Chief, Permit Section, Water Pollution Control Program St. Louis Regional Office

Bob Holden, Governor - Stephen M. Mahfood, Director

OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY P.O. Box 176 Jefferson City, MO 65102-0176

February 6, 2002

CERTIFIED MAIL # 7099 3220 0009 3708 6760 RETRUN RECEIPT REQUESTED

Rodney T. Bloese, R.G., L.P.G. Bridgeton Sanitary Landfill, L.L.C. Allied Waste Industries, Inc. 13570 St. Charles Rock Road Bridgeton, MO 63044

RE: Groundwater Sampling and Statistical Analysis for Bridgeton Sanitary Landfill, L.L.C.,
Permit Number 118912, St. Louis County

Dear Mr. Bloese:

The Missouri Department of Natural Resources' Solid Waste Management Program (SWMP) has reviewed groundwater monitoring data through the sampling event of November 2001.

As previously agreed to with the department's SWMP and the Geological Survey and Resource Assessment Division the groundwater monitoring program consists of the following monitoring wells as designated:

- 1) 100-SS 10 Feet below the water table in the Middle to Upper St. Louis Formation.
- 2) 100-SD Deep in the basal Salem Formation.
- 3) 201A-SS 10 Feet below the water table in the middle St. Louis Formation.
- 4) 104-SS 10 Feet below the water table in the Lower St. Louis Formation.
- 5) 104-SD Deep in the lower Salem Formation.
- 6) 105-SS 10 Feet below the water table in the lower/basal St. Louis Formation.
- 7) 106-SS 10 Feet below the water table in the upper Salem Formation.
- 8) 106-SD Deep in the lower Salem Formation.
- 9) 205-SS 10 Feet below the water table in the middle St. Louis Formation.
- 10) 109-SS 10 Feet below the water table in the middle to upper Salem Formation.
- 11) 110-SS 10 Feet below the water table in the lower St. Louis Formation.
- 12) 111-SD 10 Feet below the water table in the lower/basal [?upper?] Salem Formation.
- 13) 114-AS 10 feet below the water table in the alluvium.
- 14) 115-SS 10 Feet below the water table in the middle St. Louis Formation.

Bridgeton Sanitary Landfill, L.L.C. is performing intra-well prediction interval comparisons for an inward gradient site where the upgradient monitoring wells are the compliance wells.

Rodney T. Bloese, R.G., L.P.G. Page 2

Bridgeton Sanitary Landfill, L.L.C. has stated - per our November 22, 1999, statistical analysis plan (SAP) approval letter, condition number 2, change to their SAP - that, "... a list will be made of any organic parameters with a detectable concentration." The department's SWMP addresses any detected organic parameter as a statistically significant increase (SSI).

Chloro benzene in monitoring well 114-AS was a detected SSI in the May 2001 sampling/statistical analysis round and now has been confirmed as a detected organic parameter by the November 2001 sampling round in monitoring well 114-AS. Historical organic parameter detections are presented in Attachment I to this letter.

Within ninety (90) days of confirming any SSIs at the Bridgeton Sanitary Landfill, L.L.C., please provide a demonstration showing that a source other than the sanitary landfill caused the SSIs, or that the SSIs resulted from an error in sampling, analysis, statistical evaluation, or natural variation. If this demonstration cannot be made to the department's satisfaction, then please submit a groundwater quality assessment monitoring program plan.

For any new (non-confirmed as indicated above) SSI, Bridgeton Sanitary Landfill, L.L.C., Permit Number 118912 may use the May 2001 sampling event data as the resampling data per 10 CSR, 80-3.010(11)(C) 6 A through C.

The following are the areas of concern (AOCs) for monitoring wells; and associated trend analysis results per the department's SWMP November 22, 1999, conditioned SAP approval of the "Statistical Analysis Plan, Bridgeton Sanitary Landfill, L.L.C., Missouri," by Herst & Associates, Inc., for the Bridgeton Sanitary Landfill, dated November 1999 and received November 17, 1999:

Well@araneter	Intra-WellPrediction Interval	·····································
100-SS/Magnesium	Parametric	No
106-SD/Magnesium	Parametric	No .
201 A-SS/Magnesium	Parametric	No
111-SD/Phosphorus	Parametric	No
115-SS/Sodium	Parametric	No
115-SS/Sulfate	Parametric	No
115-SS/Total Organic Carbon	Parametric	No
201A-SS/Total Organic Carbon	Parametric	No
*205-SS/Sodium	Parametric	No

Please note for future analytical results, that when we show a certain number of "*" before a well/parameter combination in the table above, then this will show the number of times the AOC is confirmed/verified by resampling statistics.

Rodney T. Bloese, R.G., L.P.G. Page 3

Bridgeton Sanitary Landfill, L.L.C. must continue to monitor the significant upward trend on confirmed AOCs. If a significant upward trend(s) develops over time for any future confirmed AOC parameter with at least ten (10) rounds (with outlier rounds removed) of background data, then a written work plan for evaluating the cause of this trend(s) will be submitted to the department's SWMP.

Thank you for your attention to statistical analysis reporting. Should you require further assistance or have questions pertaining to this document, please contact Mr. John R. Cramer, of the Permits Unit at (573) 751-5401.

Sincerely,

SOLID WASTE MANAGEMENT PROGRAM

Russell J. Seedyk/Jr., P.E. Chief, Permits Unit

Enclosure

RJS:icb

Ward E. Herst, R.G., Managing Director, Herst & Associates, Inc. Ms. Susan Taylor, St. Louis County Department of Health Ms. Beth Marsala, Chief, Enforcement Section, Solid Waste Management Program Joe Gillman, R.G., Chief, Environmental Assistance Unit, Geological Survey and Resource Assessment Division Mr. Phil Schroeder, Chief, Permit Section, Water Pollution Control Program St. Louis Regional Office



Bob Holden, Governor + Stephen M. Mahfood, Directo

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY
 P.O. Box 176 Jefferson City, MO 65102-0176

December 21, 2001

CERTIFIED MAIL # 7099 3220 0009 3708 6616 RETRUN RECEIPT REQUESTED

Matt Kingsley, P.E., General Manager Laidlaw Waste Systems Bridgeton Sanitary Landfill, Inc. 13570 St. Charles Rock Road Bridgeton, MO 63044

RE: Groundwater Sampling and Statistical Analysis for Bridgeton Sanitary Landfill, L.L.C., Permit Number 118912, St. Louis County

Dear Mr. Kingsley:

The Missouri Department of Natural Resources' Solid Waste Management Program (SWMP) has reviewed groundwater monitoring data through the sampling event of May 2001.

As previously agreed to with the department's SWMP and the Geological Survey & Resource Assessment Division the groundwater monitoring program consists of the following monitoring wells as designated:

- 1) 100-SS 10 Feet below the water table in the Middle to Upper St. Louis Formation.
- 2) 100-SD Deep in the basal Salem Formation.

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- 3) 201A-SS 10 Feet below the water table in the middle St. Louis Formation.
- 4) 104-SS 10 Feet below the water table in the Lower St. Louis Formation.
- 5) 104-SD Deep in the lower Salem Formation.
- 6) 105-SS 10 Feet below the water table in the lower/basal St. Louis Formation.
- 7) 106-SS 10 Feet below the water table in the upper Salem Formation.
- 8) 106-SD Deep in the lower Salem Formation.
- 9) 205-SS 10 Feet below the water table in the middle St. Louis Formation.
- 10) 109-SS 10 Feet below the water table in the middle to upper Salem Formation.
- 11) 110-SS 10 Feet below the water table in the lower St. Louis Formation.
- 12) 111-SD 10 Feet below the water table in the lower/basal [?upper?] Salem Formation.
- 13) 114-AS 10 feet below the water table in the alluvium.
- 14) 115-SS 10 Feet below the water table in the middle St. Louis Formation.

Matt Kingsley, P.E. Page 2

Please note that as in the electronically submitted groundwater data that we are using, the leading "PZ-" in front of each monitoring well designation has been dropped. This was also done because the above list of fourteen (14) monitoring wells are no longer just piezometers.

Bridgeton Sanitary Landfill, L.L.C. is performing intra-well prediction interval comparisons for an inward gradient site where the upgradient monitoring wells are the compliance wells.

Bridgeton Sanitary Landfill, L.L.C. has stated - per our November 22, 1999, statistical analysis plan (SAP) approval letter, condition number 2, change to their SAP - that, "... a list will be made of any organic parameters with a detectable concentration." The department's SWMP addresses any detected organic parameter as a statistically significant increase (SSI), and for the May 2001 sampling/statistical analysis round chlorobenzene was detected in monitoring well 114-AS.

For any new (non-confirmed as indicated above) SSI, Bridgeton Sanitary Landfill, L.L.C., Permit Number 118912 may use the November 2001 sampling event data as the resampling data per 10 CSR 80-3.010(11)(C) 6 A through C.

Within ninety (90) days of confirming any SSIs at the Bridgeton Sanitary Landfill, L.L.C., please provide a demonstration showing that a source other than the sanitary landfill caused the SSIs, or that the SSIs resulted from an error in sampling, analysis, statistical evaluation, or natural variation. If this demonstration cannot be made to the department's satisfaction, then please submit a groundwater quality assessment monitoring program plan.

The following are the areas of concern (AOCs) for monitoring wells; and associated trend analysis results per the department's SWMP November 22, 1999, conditioned SAP approval of the "Statistical Analysis Plan, Bridgeton Sanitary Landfill, L.L.C., Missouri," by Herst & Associates, Inc., for the Bridgeton Sanitary Landfill, dated November 1999 and received November 17, 1999:

Well/Parameter	Intra-Well Prediction Interval	Significant Trend
111-SD/Barium	Parametric	No
114-AS/Barium	Parametric	No
115-SS/Barium	Parametric	No
105-SS/Calcium	Parametric	No .
105-SS/Chloride	Parametric	Yes
104-SD/ Fluoride	Parametric	No
105-SS/Magnesium	Parametric	No
		<u> </u>

Well/Parameter	Intra-Well Prediction	Interval Significant Trend
115-SS/Phosphorus	Parametric	No
205-SS/Phosphorus	Parametric	No
205-SS/Sodium	Parametric	No
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Please note for future analytical results, that when we show a certain number of "*" before a well/parameter combination in the table above, then this will show the number of times the AOC is confirmed/verified by resampling statistics.

Bridgeton Sanitary Landfill, L.L.C. must continue to monitor the significant upward trend on confirmed AOCs. If a significant upward trend(s) develops over time for any future confirmed AOC parameter with at least ten (10) rounds (with outlier rounds removed) of background data, then an written work plan for evaluating the cause of this trend(s) will be submitted to the department's SWMP.

Thank you for your attention to statistical analysis reporting. Should you require further assistance or have questions pertaining to this document, please contact Mr. John R. Cramer, of the Permits Unit at (573) 751-5401.

Sincerely,

SOLID WASTE MANAGEMENT PROGRAM

Russell J. Seedyl, Jr., P.E. Chief, Permits Unit

RJS:jcb

c: Ward E. Herst, R.G., Managing Director, Herst & Associates, Inc.
Rodney T. Bloese, R.G., L.P.G., Regional Engineer, Bridgeton Sanitary Landfill
Ms. Susan Taylor, St. Louis County Department of Health
Ms. Beth Marsala, Chief, Enforcement Section, Solid Waste Management Program

Mr. Joe Gillman, Geological Survey & Resource Assessment Division

Mr. Phil Schroeder, Water Pollution Control Program

St. Louis Regional Office

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Bob Holden THE PROPERTY AND THE PROPERTY AS A PROPERTY OF THE PROPERTY OF

STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

***DIVISION OF ENVIRONMENTAL QUALITY BO. Box 176 Jufferson Circ. MO 65102-0176

March 22, 2001

CERTIFIED MAIL # 7099 3220 0009 3712 9733 RETURN RECEIPT REQUESTED

Matt Kingsley, P.E. General Manager Bridgeton Landfill Authority 13570 St. Charles Rock Road Bridgeton, MO 63044

RE: Bridgeton Sanitary Landfill, Permit Number 118912, St. Louis County

Dear Mr. Kingsley:

On January 17, 2001, the Missouri Department of Natural Resources' Solid Waste Management Program received the gas remediation plan for the Bridgeton Sanitary Landfill. The plan was prepared by Lindsey Henry, P.E., of Midwest Environmental Consultants Co., and was submitted in response to the department's letter to you dated November 16, 2000. In the plan, it is proposed to install four (4) additional gas extraction wells and replace two (2) others in the southwest corner of the landfill. Included with the plan was two (2) plan sheets showing the location of the additional wells and the replacement wells.

The program has reviewed the submittal in accordance with the Missouri Solid Waste Management Law and regulations. Based on that review, the program hereby approves the remediation plan with the condition stated.

The following condition is an integral part of this approval. Compliance with this condition shall, in part, determine compliance with Permit Number 118912.

CONDITION:

The gas extraction wells shall be installed or replaced within ninety (90) days of receipt of this letter.

If in the future wells become damaged or are in need of repair or replacement, you may replace or repair them as necessary without prior approval of the department. As-built drawings do not need to be submitted to the department for such work, as long as no significant changes are made in the location of the wells.

Matt Kingsley, P.E. Page 2

This approval should not be construed as compliance with any existing federal or state laws other that the Missouri Solid Waste Management Law; nor should this be construed as a waiver for any other regulatory requirements. This approval is not to be construed as compliance with any existing local permitting or zoning ordinances; nor does it supersede any local permitting and/or zoning requirements.

The department reserves the right to revoke, suspend, or modify the addendum and/or Permit Number 118912 if the permit holder fails to maintain the facility in compliance with the state's Solid Waste Management Law, with the terms and conditions of the permit and with the approved engineering plans and specifications.

We appreciate your continued efforts towards environmentally sound solid waste management practices. If you have any comments or question concerning this letter, contact Mr. Brad Zimmerman of my staff at (573) 751-5401, or P.O. Box 176, Jefferson City, Missouri 65102-0176.

Sincerely,

SOLID WASTE MANAGEMENT PROGRAM

Jim Bell

Chief, Engineering Section

JB:bzc

c: Lindsey Henry, P.E., Midwest Environmental Consultants Co.
Ms. Sue Taylor, St. Louis County Department of Health
Ms. Beth Marsala, Chief, Enforcement Section, Solid Waste Management Program
Mr. Joe Trunko, Chief, Solid Waste Unit, St. Louis Regional Office



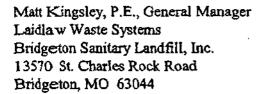
Mel Carnalian, Governor + Scephen M. Mahfood, Director

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176 Jefferson City, MO 65102-0176

November 22, 1999

CERTIFIED MAIL # Z 290 182 178 RETRUN RECEIPT REQUESTED



RE: Groundwater Statistical Analysis Plan for Bridgeton Sanitary Landfill, L.L.C., Permit Number 118912, St. Louis County

Dear Mr. Kingsley:

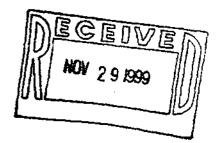
The Solid Waste Management Program (SWMP) has reviewed the Statistical Analysis Plan (SAP) for Bridgeton Sanitary Landfill, L.L.C.

The SWMP hereby approves, with the conditions as stated below, the SAP for Bridgeton Sanitary Landfill, L.L.C. The permittee must ensure that this approval is properly implemented. This approval is not to be construed as compliance with any existing federal or state environmental laws other than the Missouri Solid Waste Management Law; nor should this be construed as a waiver for other regulatory requirements. This approval is not to be construed as compliance with any existing local ordinances or zoning requirements; nor does it supersede any local permitting and/or zoning requirements.

The following documents are hereby incorporated by reference into Permit Number 109515:

DOCUMENTS:

- A letter of transmittal for the report listed below in item 2 (document number 2), dated November 16, 1999, and received November 17, 1999, from Ward E. Herst, P.G., Managing Director of Herst & Associates, Inc.
- A report entitled, "<u>Statistical Analysis Plan, Bridgeton Sanitary Landfill, LLC, Missouri,</u>" by Herst & Associates, Inc., for the Bridgeton Sanitary Landfill. This report is dated November 1999, and was received November 17, 1999.



Matt Kingsley, P.E., General Manager Page 2

CONDITIONS:

The following conditions are an integral part of this approval:

- Because Bridgeton Sanitary Landfill is performing intra-well comparisons for an inward gradient site where the upgradient monitoring wells are the compliance wells, last date outliers (highs or lows) shall not be excluded from compliance wells only for the present analysis.
- 2. Procedural step A in Section 3.3.5 of Item Number 2 of the above approved documents shall read, "The laboratory analytical report of the groundwater sampling results will be reviewed and a list will be made of any organic parameters with a detectable concentration." There is too much uncertainty with the wording of procedural step A in Section 3.3.5 as to how data validation with evaluation of quality assurance/quality control (QA/QC) blanks might be used in reporting organic concentrations. We have already stated that QA/QC data shall be stored separately and not be used to classify what is detectable/reportable in groundwater samples.

The department reserves the right to revoke, suspend, or modify Permit Number 118912 after due notice if the permit holder fails to maintain the facility in compliance with the state's Solid Waste Management Law and rules, the terms and conditions of the permit, and the approved engineering plans and specifications.

Should you have any questions, please contact Mr. John R. Cramer of my staff at (573) 751-5401.

Sincerely,

SOLID WASTE MANAGEMENT PROGRAM

Chief, Permits Unit

RJS:jcb

c: Ward E. Herst, R.G., Managing Director, Herst & Associates, Inc.

Rodney T. Bloese, R.G., L.P.G., Regional Engineer, Bridgeton Sanitary Landfill

Ms. Susan Taylor, St. Louis County Department of Health

Mr. Edward Galbraith, Chief, Enforcement Section, SWMP

Mr. Bill Duley, Division of Geology and Land Survey

Mr. Phil Schroeder, Water Pollution Control Program

St. Louis Regional Office

POIVISION OF ENVIRONMENTAL QUALITY P.O. Box 176 Jefferson City, MO 65102-0176

September 1, 1999

CERTIFIED MAIL # Z 290 182 122 RETURN RECEIPT REQUESTED

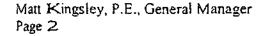
Matt Kingsley, P.E., General Manager Laidlaw Waste Systems Bridgeton Sanitary Landfill, Inc. 13570 St. Charles Rock Road Bridgeton, MO 63044

RE: Groundwater Sampling and Statistical Analysis Plan for Laidlaw Waste Systems, Bridgeton Sanitary Landfill, Inc., Permit Number 118912, St. Louis County

Dear Mr. Kingsley:

The Solid Waste Management Program (SWMP) has reviewed the following documents:

- 1. A letter with supplemental information for the sampling and analysis plan (SAP). This letter is dated May 13, 1999, and was received May 17, 1999, from Ward Herst, R.G., Director, Herst & Associates, Inc.
- A letter of transmittal for the Response to the March 24, 1999, SWMP Comment Letter for the Groundwater Sampling and Statistical Analysis Plan, dated November 13, 1998, and received November 16, 1998, prepared by Ward E. Herst, R.G., Director, Herst & Associates, Inc. This letter is dated April 23, 1999, and was received April 26, 1999, from Rodney T. Bloese, R.G., Regional Engineer and Matt Kingsley, P.E., Site Manager, Bridgeton Sanitary Landfill.
- 3. An attached letter entitled, "Responses to March 24 1999 MDNR Comments, Bridgeton Landfill, LLC Groundwater Sampling and Statistical Analysis Plan," from Ward E. Herst, R.G., Director, Herst & Associates, Inc. on behalf of Bridgeton Landfill, L.L.C. This attached letter is dated April 23, 1999, and was received April 26, 1999. Attached to this letter is the March 24, 1999, SWMP Comment Letter.



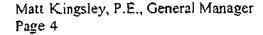
- 4. A report from Dr. Charles B. Davis, Ph.D. entitled, "Response to comments from MDNR to Bridgeton Landfill regarding the proposed groundwater detection monitoring statistics program prepared by EnviroStat." Attached to this report are the following publications:
 - A. <u>Simultaneous Nonparametric Prediction Limits</u>, by Dr. Charles B. Davis, Ph.D., and Dr. Roger J. McNichols, Ph.D., which appeared in Technometrics 41, May 1999, with discussion and response.
 - B. Ground Water Monitoring Issues: Case Studies, by Dr. Charles B. Davis, Ph.D., and Dr. Roger J. McNichols, Ph.D., which was presented at WASTE TECH '98, San Antonio, Texas, February 2-3, 1998.
 - C. Comparisons of Control Chart and Prediction Limit Procedures Recommended for Groundwater Detection Monitoring, by Dr. Charles B. Davis, Ph.D., Principal Statistician, Environmetrics and Statistics Limited, EnviroStat Technical Report 99-1, dated January 1999.

The S WMP has provided comments pertaining to the previous documents and requires the following in the groundwater sampling and statistical analysis plan:

- 1. Statistical Pre-testing and Data Manipulation for Selection of the Appropriate Intra-well Prediction Interval Test Method
 - 1. Provide for collection of a minimum of nine (9) background samples per well. For greater than (>) four (4) and up to eight (8) background samples per well Bridgeton Sanitary Landfill, Inc. may use a Poisson's Prediction limit test.
 - 2. Updating background data annually may only start after the minimum of twelve (12) background samples has been collected for each well.
 - For < 25% non-detects use the Practical Quantitation Limit (PQL) divided by two
 (2), or Cohen's Adjustment.
 - For ≥ 25% and < 75% non-detects use Cohen's Adjustment or the modified Aitchison's Adjustment (also known as the modified delta method).
 - 5. For outlier testing use Dixon's Test and Rosner's Test (for multiple outliers) for each analytical event. Outliers can only be excluded for the analytical event in which they are determined. Outliers from a previous analytical event must be incorporated in the background database of the current analytical event, unless and until, they are shown to be outliers for the current analytical event.

Matt Kingsley, P.E., General Manager Page 3

- 6. For normality testing use:
 - A. For $n \le 50$ use the Shapiro-Wilk Test.
 - B. For n > 50 use the Shapiro-Francia Test.
 - C. As an alternative to the Shapiro-Wilk Test you may use Filliben's Probability Plot Correlation Coefficient method.
- 7. Using Levene's Test, determine if there is equal variance among wells that have normal data distribution (original or transformed).
- 8. For wells that are equal variant, perform parametric intra-well prediction interval testing using pooled standard deviation and adjusted degrees of freedom. Also, specify the minimum number of wells required for parametric intra-well prediction interval testing using pooled standard deviation and adjusted degrees of freedom. Describe how the minimum number of wells is determined, and any factors (e.g., spatial distribution around the landfill) which might alter this minimum number of wells.
- 9. For any wells that are not equal variant, perform separate standard parametric intrawell prediction interval testing. Also, wells that add up to less than the required minimum number of wells for parametric intra-well prediction interval testing using pooled standard deviation and adjusted degrees of freedom will be tested individually using standard parametric intra-well prediction interval testing.
- 10. For wells with ≥ 75% non-detects, perform standard non-parametric intra-well prediction interval testing.
- 11. Pooling of any background data across wells for non-parametric intra-well prediction interval testing is not permitted. Because we do not allow pooling of data across wells for non-parametric intra-well prediction interval testing, there is no need for a chisquare test for pooled well data having non-detects > 60%.
- II. Parametric Intra-well Prediction Interval Testing Using Pooled Standard Deviation and Adjusted Degrees of Freedom.
 - 1. Each well's next-date concentration for a test parameter shall be compared to that well's upper prediction limit (UPL). If the UPL is exceeded, then a statistically significant increase (SSI) will be reported in writing to the SWMP and the appropriate resampling strategy will be conducted as discussed later in this letter.



2. The UPL for each well is calculated for each well's intra-well prediction interval using the formula, UPL equals the individual well's mean plus kappa multiplied by the pooled standard deviation from the equal variant wells' data.

III. Standard Parametric Intra-well Prediction Interval Testing

- 1. Each well's next-date concentration for a test parameter shall be compared to that well's upper prediction limit (UPL). If the UPL is exceeded, then a SSI will be reported in writing to the SWMP and the appropriate resampling strategy will be conducted as discussed later in this letter.
- 2. The upper prediction limit (UPL) for each well is calculated for each well's intrawell prediction interval using the formula, UPL equals the individual well's mean plus kappa multiplied by the standard deviation from the individual well's data.

IV. Standard Non-Parametric Intra-well Prediction Interval Testing

In general each well's next-date concentration for a test parameter shall be compared to that well's largest non-outlier concentration. If the UPL is exceeded, then a SSI will be reported in writing to the SWMP and the appropriate resampling strategy will be conducted as discussed later in this letter.

V. Resampling Strategy Based on the Background Sample Size per Well

- 1. For any of the previously described parametric or non-parametric intra-well test methods, resampling shall only be for: 1) pass one of two resamples if the background sample size (n) is ≤ 12 ; and 2) pass one of one resample if the background sample size (n) is ≥ 12 .
- 2. There shall be no alternate statistical comparison method for organic parameters, and resampling for organic parameters shall be conducted as per the above item 1. Section V of this letter.
- 3. Resampling for any of the parametric or non-parametric intra-well prediction interval statistical tests previously described must be a minimum of one quarter later from the previous sampling event. The department's Environmental Services Program laboratory must be given the option to split samples for each resampling event.

VI. Additional Required Information

- I. A reduced parameter list is not an option. Please note that we presently take the position that infrequently detected parameters such as volatile organic compounds are non-naturally occurring. We have to consider transport/fate mechanisms during SSI demonstrations and assessment monitoring on landfill releases, and not just statistical methods during detection monitoring (e.g., Dr. Davis's Data-Based Power Analysis, (DBPA), method for probabilistic or chance estimate of confirmation of an SSI).
- 2. Provide a serious written discussion of demonstrations for SSIs confirmed from our described methods of resampling.
- 3. Provide a statistical flow chart(s), incorporating the information in this letter, with your next submittal. This flow chart(s) must be presented so the SWMP has consistent (and acceptable with this letter) procedural steps we can follow and come up with results that agree with Bridgeton Sanitary Landfill, Inc. results.
- 4. Please provide us with software as per Dr. Charles B. Davis's proposed action, "supply software to MDNR which can be used to verify individual computations", on page 9 of his April 16, 1999 "Response to Comments from MDNR" This software must be capable of running verifiable, user-friendly statistical analyses per the requirements of this letter. If such software cannot be provided, then the statistical analysis program will have to be changed to one that can be handled by the software the SWMP currently uses. If statistical software eventually becomes available to handle the statistical analysis per this letter, then the groundwater sampling and statistical analysis plan may be changed at that time.
- 5. The SWMP and the Division of Geology and Land Survey (DGLS) recognize the groundwater monitoring program as being modified to consist of the following monitoring wells:

 1) PZ-100-SS
 8) PZ-106-SD

 2) PZ-100-SD
 9) PZ-205-SS

 3) PZ-201A-SS
 10) PZ-109-SS

 4) PZ-104-SS
 11) PZ-110-SS

4.5

6) PZ-105-SS 13) PZ-114-AS

7) PZ-106-SS 14) PZ-115-SS

The SWMP and the DGLS agree that calculation of a well's purge volume will be based on a sand pack porosity of 10% to 15%.

Matt Kingsley, P.E., General Manager Page 6

Please submit a corrected report with our requested changes within thirty (30) days of receipt of this letter. The department reserves the right to revoke, suspend, or modify Permit Number 118912 after due notice if the permit holder fails to maintain the facility in compliance with the state's Solid Waste Management Law and rules, the terms and conditions of the permit, and the approved engineering plans and specifications.

Thank you for your prompt attention to this matter. Should you require further assistance, or have questions pertaining to this document, please contact Mr. John R. Cramer of the Permits Unit at (573) 751-5401.

Sincerely,

SOLID WASTE MANAGEMENT PROGRAM

Russell J. Seedyk, Jr., P.E.

Chief, Permits Unit

RJS:jcb

c: Ward Herst, R.G., Herst & Associates, Inc.

Dr. Charles B. Davis, Ph.D., Environmetrics & Statistics Limited

Rodney T. Bloese, R.G., L.P.G., Regional Engineer, Bridgeton Sanitary Landfill

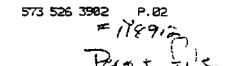
Ms. Susan Taylor, St. Louis County Department of Health

Mr. Edward Galbraith, Chief, Enforcement Section, SWMP

Mr. Bill Duley, Division of Geology and Land Survey

Mr. Phil Schroeder, Water Pollution Control Program

St. Louis Regional Office





Mel Carachao, Commune - Stephen M. Mahfond, Director

VT OF NATURAL RESOURCES

~DIVISION OF ENVIRONMENTAL QUALITY P.O. Box 176 jefferson City, MO 65102-0176

JUN 1 8 1999

CERTIFIED MAIL # Z 290 140 514 RETURN RECEIPT REQUESTED

Matt Kirngsley, P.E. Bridgeton Landfill Authority 13570 St. Charles Rock Road Bridgeton, MO 63044

RE: Bridgeton Sanitary Landfill, Permit Number 118912, St. Louis County

Deat Mr. Kingsley.

On May 22, 1997, the Missouri Department of Natural Resources' Solid Waste Management Program (SWMP) met with staff from Allied Waste Industries of Missouri to discuss the groundwater and gas monitoring plans. One item agreed upon at the meeting was to directly connect the leachate collection force main line to the Missouri River Wastewater Treatment Plant (WWTP), and close the existing leachate collection pond. The SWMP hereby approves the direct connection of the leachate force main to the WWTP as well as closure of the leachate collection pond.

The following conditions are an integral part of this approval. Compliance with these conditions shall, in part, determine compliance with Fermit Number 118912.

CONDITIONS

- This activity may require a permit or approval from the department's Water Pollution Control Program (WPCP). Please contact Mr. Phil Schroeder, Permits Section Chief, WPCP, at (573) 751-1300 for a determination of any necessary requirements, approvals, or permits. The SWMP shall be copied on all correspondence.
- Any sludge in the bottom of the lagoon must be dewatered and disposed of in the landfill, or
 other wise properly disposed of as solid waste, after first verifying the sludge is not hazardous
 by the Toxicity Characteristic Leaching Procedures.
- If there is evidence that leakage has occurred through the geomembrane, all visibly contaminated soil must be handled as explained above for the sludge.

Matt Kingsley, P.E. Page 2

4. Within thirty (30) days of completing closure, please submit a report describing the procedures taken to connect the force main line to the WWTP, and the procedures used in pond closure. In addition, all areas disturbed during this project must be vegetated within 180 days of the completion date.

This approval is not to be construed as compliance with any existing federal or state environmental laws other than the Missouri Solid Waste Management Law; nor should this be construed as a waiver for any other regulatory requirements. This approval is not to be construed as compliance with any existing local permitting or zoning ordinances; nor does it supersede any local permitting and/or zoning requirements.

The department reserves the right to revoke, suspend, or modify this approval and/or Permit Number 118912 after due notice, if the permit holder fails to maintain the facility in compliance with the Missouri Solid Waste Management Law and regulations, the terms and conditions of the permit, and approved engineering plans and specifications.

We appreciate your continued efforts towards environmentally sound solid waste management practices. If you have any comments or question concerning this letter, please contact Michele Boussad of my staff at (573) 751-5401.

Sincerely,

SOLID WASTE MANAGEMENT PROGRAM

Jim Bell

Chief, Engineering Section

B:mbc

c: Mr. Rod Bloese, Allied Waste Industries, Inc.

Ms. Susan Taylor, St. Louis County Department of Health

Mr. Ed Galbraith, Chief, Enforcement Section, SWMP

Mr. Phil Schroeder, Chief, Permits Section, WPCP

Mr. Joe Trunko, Chief, Solid Waste Unit, SLRO

T OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY FO. Box 176 Jefferson City, MO 65102-0176

March 24, 1999

CERTIFIED MAIL # Z 290 140 333 RETURN RECEIPT REQUESTED

Mr. Matt Kingsley, General Manager Laidlaw Waste Systems Bridgeton Sanitary Landfill, Inc. 13570 St. Charles Rock Road Bridgeton, MO 63044

Groundwater Sampling and Statistical Analysis Plan for the Laidlaw Waste Systems, RE: Bridgeton Sanitary Landfill, Inc., Permit Number 118912, St. Louis County

Dear Mr. Kingsley:

The Solid Waste Management Program (SWMP) has reviewed the following documents:

- 1. A letter of transmittal for the three volumes of the Groundwater Sampling and Statistical Analysis Plan, dated November 13, 1998, and received November 16, 1998, prepared by Ward Herst, R.G., Director, Herst & Associates, Inc.
- 2. The transmitted three-volume report entitled, "Sampling and Analysis Plan, Bridgeton Landfill, LLC, by Herst & Associates, Inc.", on behalf of Bridgeton Landfill, LLC. This report is dated November 1998, and received November 16,1998. Volume I is "Text and Tables." Volume II is "Figures." Volume III is "Appendices."
- 3. A second letter of transmittal for Appendix D of the report of item 2 above, "Ground-Water Monitoring Statistical Analysis Program for Bridgeton Landfill," dated November 24, 1998, and received November 25, 1998, prepared by Ward Herst, R.G., Director, Herst & Associates, Inc.
- 4. Appendix D of the report of item 2 above, "Ground-Water Monitoring Statistical Analysis Program for Bridgeton Landfill," prepared by Charles B. Davis, Ph.D., Principal Statistician, Environmetrics & Statistics Limited.

The SWMP has prepared the following comments pertaining to the statistical analysis plan of "Sampling and Analysis Plan, Bridgeton Landfill, LLC:"

1. All text of Appendix D, Statistical Evaluation Plan. Please make changes reflecting the collection of the necessary quarterly background data for the complete set of indicator parameters and Appendix I parameters per 10 CSR 80-3.010 (11). Please make the proposal for the necessary quarterly background data for conducting intra-well comparisons (parametric or non-parametric) based on the assumed or understood independence of each monitoring well's data from spatial variability or autocorrelation. Please continue with quarterly background monitoring while the SWMP is deciding on your proposal for background monitoring.

Please provide discussion(s) of your methods for updating background data during detection monitoring. Please state in your plan that unimpacted data from future statistical comparisons (post-background monitoring) shall be added to the background databases for statistical comparisons.

- 2. All text of Appendix D, Statistical Evaluation Plan. The SWMP cannot allow any of the cross-well data pooling strategies (e.g., pooling variance/standard deviation estimates, or mon-parametric background data pooling on infrequently detected parameters) for intrawell comparisons. Please use an intra-well (parametric or non-parametric) comparison that analyzes each well's data separately in a manner consistent with existing software packages. The SWMP currently uses "Sanitas for Ground Water, Version 7.013" by Intelligent Decision Technologies, Ltd. Please make the necessary changes to the pre-testing, statistical comparison tests, evaluations/controls on alpha (test and site-wide), and power determinations.
- 3. All text of Appendix D, Statistical Evaluation Plan. Please show that only the next date sample value (next one out of one sample) will be used for determination of any statistically significant increase (SSI) in any intra-well comparison.
- 4. All text of Appendix D, Statistical Evaluation Plan. In accordance with 10 CSR 80-3.010 (11)(C) 6, please make changes that show only one verification resample for SSIs. Show that when the resample is split that either the results of our Environmental Services Program laboratory or your laboratory is enough to confirm a SSI.
- 5. All text of Appendix D, Statistical Evaluation Plan. Any reduction in the sampling parameter list shall only be arrived at via the SWMP's and the Division of Geology and Land Survey's (DGLS) review of monitoring results which may include demonstrations preproposed /approved within the statistical analysis plan; or implemented post SSI confirmation.

Projection of isolated (temporally and spatially) and dynamic leachate constituent concentrations to groundwater, is not an acceptable method for sampling parameter list reduction. Infrequency of detects is also not an acceptable method for parameter list reduction. In your data-based power analyses (parametric or non-parametric), we are concerned with SSIs at much lower concentrations than cited for your probabilistic (chance) estimate(s) of leachate concentrations for a confirmed SSI. In your reevaluation of the power of the intra-well statistical tests, as revised by the comments in this letter, you need to show comparison - after sufficient sampling/testing - to an EPA reference power curve of a 99 percent prediction limit applied to a single well. You will need more data before adequate power analyses can be done.

- 6. All text of Appendix D, Statistical Evaluation Plan. The only non-naturally occurring and trace constituents the SWMP will currently accept an alternate SSI determination approach are organic sampling parameters. This alternate approach must follow a strategy that establishes the "confirmed presence" of an organic in a monitoring well as an SSI based on the following procedural steps:
 - A. The laboratory analytical report of the groundwater sampling results will be reviewed and a list will be made of any organic parameters with a detectable concentration.
 - B. These detectable concentrations will be evaluated to determine if there is a "confirmed presence" by considering that any detections that are estimated or reported at a concentration below the PQL for the parameter will be disregarded.
 - C. Any detections that remain from the above two steps will be considered a potential SSI. Monitoring wells with any potential Appendix I organic parameter SSIs will be resampled and the resampling results will be used to establish a "confirmed presence" of the SSI.

Assessment of

Please make any necessary changes to the text to show this comment's test strategy for organics.

7. All text of Appendix D, Statistical Evaluation Plan. Please provide an intra-well stastistical analysis flow chart derived from a simple text based discussion as per the required changes of this letter's comments. This flow chart shall run from initial data acquisition/evaluation task blocks to post SSI demonstration decision outcome task blocks of either "return to detection monitoring" or "provide groundwater assessment monitoring plan." Note that we are not looking for another detailed statistical analysis on existing data to substantiate the plan and a reduced parameter list. A simplified statistical analysis plan with flow chart is what is required.

- 8. All text of Appendix D, Statistical Evaluation Plan. Information in the statistical analysis plan must also include the following:
 - A. Detailed descriptions on the handling of non-detects.
 - B. Detailed discussions of selection and use of statistical comparison methods based on percent non-detects, adjustments performed on non-detects, and pre-tests (e.g., distribution analyses).
 - C. Detailed discussion of what actions will be taken per the rules when SSIs occur.
 - D. Technically detailed procedures on demonstration and assessment monitoring.
 - E. Corrective action discussions or references to corrective action sections of the rule.
- 9. All text of Appendix D, Statistical Evaluation Plan. For consistency in designations, monitoring point designations as show on the lithologic logs and construction summaries as provided in the "Sampling and Analysis Plan, Bridgeton Landfill, LLC." These designations shall appear on subsequent groundwater monitoring reports electronically submitted for any quarterly (background) and semi-annual sampling events. The SWMP shall reference these monitoring designations in future correspondence associated with this permit.
- 10. All text of Appendix D, Statistical Evaluation Plan. Please provide text and/or add a note to the flow chart that states that last date outliers (highs or lows) will not be excluded from wells only for present analysis.

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- 11. All text of Appendix D, Statistical Evaluation Plan. Please show in your text that Shapiro-Wilks normality testing shall be used for less than or equal to fifty (50) samples in the data set, and that Shapiro Francia normality testing shall be used for greater than fifty (50) samples in the data set.
- 12. All text of Appendix D, Statistical Evaluation Plan. In your text discussions pertaining to re-sampling post-SSI determinations, you must provide wording stating that statistical analysis will be run on all the data (including re-sample data) to confirm or disconfirm SSIs.
- 13. Volumes I, II, and III. The monitoring plan, as proposed by Herst and Associates, Inc., does not include any monitoring wells screened in the alluvium or wells along the northwestern portion of the site where the boundary of the active permitted landfill extends over the alluvial valley. Coverage along the western side of the landfill is also limited. Also even with the possible proximity influence of other fill areas on wells.

there is the possibility that organic constituents could reach an alluvial monitoring well because of possible fluctuating groundwater levels within the screened interval of an alluvial monitoring well.

The SWMP and DGLS request that the groundwater monitoring program be modified to consist of the following monitoring wells:

1)	PZ-100-SS	9)	PZ-205-SS
2)	PZ-100-SD	10)	PZ-109-SS
3)	PZ-201A-SS	11)	PZ-110-SS
4)	PZ-104-SS	12)	PZ-111-SD
5)	PZ-104-SD	13)	PZ-113-AD
6)	PZ-105-SS	14)	PZ-207-AS
7)	PZ-106-SS	15)	PZ-114-AS
8)	PZ-106-SD	16)	PZ-115-SS

If you can provide information that any of the previous selected subset of wells are malfunctioning due to poor/inadequate construction, then we will consider well replacements or reducing this subset of monitoring wells.

- 14. DGLS noted that on Figure 23 of Volume II that water level readings for PZ-111-SD were unavailable in May 1998 due to blockage in the riser by the newly installed submersible pump. Please try to remedy this situation so that water levels and monitoring samples can be properly taken. If the problem(s) with PZ-111-SD cannot be remedied, please propose a replacement monitoring well to the SWMP and DGLS.
- 15. It is unclear whether or not point MW-1204, which was included in Figure 60, "Proposed Detection Groundwater Monitoring Program" of Volume II, is to be included in the proposed monitoring program. It is not listed in the monitoring program, nor is there a monitoring well certification record or well construction details for this point. Please provide the SWMP with clarifying information on MW-1204.
- 16. Section 6, "Sampling Methodology", Volume I. The volume of the filter pack should be included in the total well volume calculations. If just the volume of the riser pipe is used, the volume of the well will be underestimated. Insufficient purging might allow stagnant water remaining in the filter pack to enter the riser during sampling. Please make necessary text corrections.

Prior to submitting a request and the engineering design for any permit modification to the groundwater monitoring program, please schedule a meeting with the SWMP to discuss changes in the groundwater monitoring program.

Please submit responses and report changes within thirty (30) days of receipt of this letter.

Mr. Matt Kingsley, General Manager Page 6

Should you have any questions, please contact Mr. John R. Cramer, of my staff, at (573) 751-5401.

Sincerely,

SOLID WASTE MANAGEMENT PROGRAM

Russell J. Seedyk, Jr., P.E. Chief, Permits Unit

RJS:jcb

c: Ward Herst, R.G., Herst & Associates, Inc.

Dr. Charles B. Davis, Ph.D., Environmetrics & Statistics Limited

Rodney T. Bloese, L.P.G., Midwest Environmental Consultants

Ms. Susan Taylor, St. Louis County Department of Health

Mr. Edward Galbraith, Chief, Enforcement Section, SWMP

Mr. Bill Duley, Division of Geology and Land Survey

Mr. Dan Schuette, Water Pollution Control Program

St Louis Regional Office



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Mel Carnaban, Coverner - Scephen M. Mahfred, Director

T OF NATURAL RESOURCES

-DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176 Jefferson City, MO 65102-0176

MAR 0 3 1999

CERTIFIED MAIL # Z 290 140 487 RETURN RECEIPT REQUESTED

Matt Kingsley, P.E. Bridgeton Landfill Authority 13570 St. Charles Rock Road Bridgeton, MO 63044

RE: Bridgeton Sanitary Landfill, Permit Number 118912, St. Louis County

Dear Mr. Kingsley:

On February 10, 1999, the Missouri Department of Natural Resources' Solid Waste Management Program (SWMP) received your request for approval to install four (4) additional gas monitoring wells at the Bridgeton Sanitary Landfill. The SWMP has reviewed the submittal in accordance with the Missouri Solid Waste Management Law and rules. Based on that review, the SWMP hereby approves the request. Design and installation of these wells will require prior approval from the department Division of Geology and Land Survey (DGLS). Please contact Mr. Bruce Netzler at (573) 368-2100. The SWMP shall be copied on all correspondence and approvals from DGLS. Once the installation of the wells has been approved by DGLS, monitoring shall be conducted in accordance with the approved documents for the Bridgeton Sanitary Landfill, Permit Number 118912.

This approval should not be construed as compliance with any existing federal or state laws other that the Missouri Solid Waste Management Law; nor should this be construed as a waiver for any other regulatory requirements. This approval is not to be construed as compliance with any existing local permitting or zoning ordinances; nor does it supersede any local permitting and/or zoning requirements.

The department reserves the right to revoke, suspend, or modify the addendum and/or Permit Number 118912 if the permit holder fails to maintain the facility in compliance with the state's Solid Waste Management Law, with the terms and conditions of the permit and with the approved engineering plans and specifications.

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Matt Kingsley, P.E. Page 2

We appreciate your continued efforts towards environmentally sound solid waste management practices. If you have any comments or question concerning this letter, contact Brad Zimmerman of my staff at (573) 751-5401, or P.O. Box 176, Jefferson City, Missouri 65102-0176

Sincerely,

SOLID WASTE MANAGEMENT PROGRAM

End Rell

Chief, Engineering Section

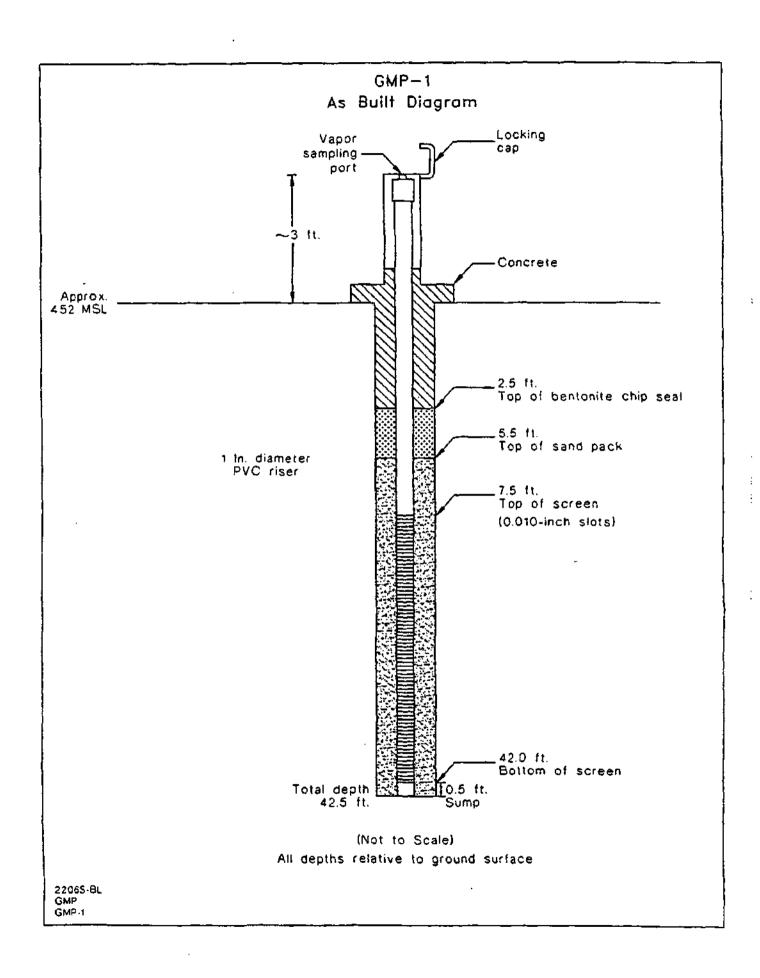
JB:bzc

. Mr. Rod Bloese, Allied Waste Industries, Inc.

Ms. Susan Taylor, St. Louis County Department of Health

Mr. Ed Galbraith, Chief, Enforcement Section, SWMP

Ms. Vickie Heberlie, Solid Waste Unit, SLRO

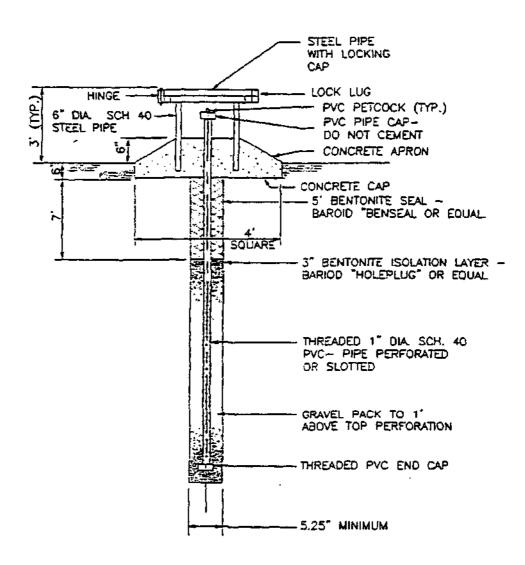


Project: Laidlaw Waste Systems (Bridgeton), Inc. Bridgeton Sanitary Landfill



Project Number: 940130-019

Date: 7/97



GAS MONITORING PROBE DETAIL FOR NEW PROBES



Mel Carnahan, Correnne - Stephen M. Mahimo, Directur

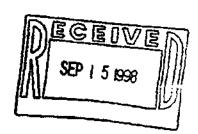
IT OF NATURAL RESOURCES

-DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176 Jefferson City, MO 65102-0176

September 11, 1998

CERTIFIED MAIL # Z 289 843 931 RETURN RECEIPT REQUESTED

Man Kingsley, P.E. Bridgeton Landfill, Inc. 13570 St. Charles Rock Road Bridgeton, MO 63044



RE:

Groundwater Monitoring: Bridgeton Landfill, Inc., Solid Waste Disposal Area Permit Number 118912, St. Louis County

Dear Mr. Kingsley:

The So lid Waste Management Program (SWMP) has reviewed the groundwater monitoring program for Bridgeton Landfill, Inc., Solid Waste Disposal Area Permit Number 118912, and requires that the following information be provided to the SWMP for review:

- 1. An updated field sampling and analysis plan (SAP). The SAP must include detailed description of current well conditions, well production details, methods of development and purging for sampling, and sampling methods. In case of low production, prioritization of sampling parameters and turbidity control, wells typically are sampled from the lowest producing/slowest recovery wells to the highest producing/fastest recovery wells. This is so low producers are allowed the maximum amount of time (not exceeding twenty-four (24) hours) to recover prior to sampling, and possibly repurging to collect the remainder of a prioritized sample parameter list. In listing by order of priority, the parameters for sampling, volatile organic compounds (VOCs) are sampled for first; usually with a method (c.g., careful bailing technique) minimizing the potential for loss of any volatiles. Post-purge sample volume and prioritized list of parameter(s) volume must be shown in the SAP for each well not producing enough post-purge sample water for complete analyses for all parameters. In general, a sampling event or round should not exceed five (5) days for all wells. Sampling should also proceed from monitoring wells that have the lowest values for parameters' concentrations to the monitoring wells that have the highest values for parameters' concentrations.
- Potentiometric surface maps of the same geochemically related aquifer for precise determination of groundwater flow direction(s) with regularly collected water level measurements to evaluate the effectiveness of monitoring wells during different seasons.

On these potentiometric surface maps show monitoring wells with their respective groundwater elevations, boundaries/limits of the progression of quarrying, waste filling, final limits of filling, and the final limits of quarrying. Protocol for the frequency of submission of these maps to the department to account for any changes in the potentiometric surface must also be provided.

- Written evaluation of any monitoring wells which are prone or projected to go dry for replacement, and/or low flow recovery sampling alternatives (i.e., low flow purging, multi-purge sampling, and parameters prioritization sampling).
- 4. Information on monitoring well construction, development, abandonment, and reporting as required by Missouri Well Construction Rules 10 CSR 23-1-6.
- 5. A written detailed discussion of groundwater data statistical methods including the following: 1) Pre-tests; 2) Parametric and non-parametric forms of comparisons; and 3) A flow chart summarizing the detailed text discussion. We recommend consideration of prediction interval testing including intra-point comparisons for this site.

Please submit the previously requested items within sixty (60) days of receipt of this letter. Above items two through five may be submitted as part of the SAP in a single request for permit modification to the groundwater monitoring program for Bridgeton Landfill, Inc., Solid Waste Disposal Area Permit Number 118912.

Should you have any questions, please contact Mr. Steven C. Wyatt or Mr. John R. Cramer of my staff at (573) 751-5401.

Sincerely,

SOLID WASTE MANAGEMENT PROGRAM

Russell J. Seedyk, Jr., P.E. Chief Permits Unit

RJS:jcb

c: Mr. Greg Ribaudo. Allied Waste Industries, Inc.
Lee D. Tharp, P.E., Midwest Environmental Consultants
Mr. Edward Galbraith, Chief, Enforcement Section, SWMP

St. Louis Regional Office

STATE OF MISSOURI

Sier Carmitian, Gowomor v Stephen M. Mablewel, Director

DEPARTMENT OF NATURAL RESOURCES

OFFICE OF THE DIRECTOR -

P.O. Box 176 Jefferson City, MO 65102-0176

MAR 2 3 1998

CERTIFIED MAIL # 2 289 843 581 RETURN RECEIPT REQUESTED

Mr. Greg Ribaudo
District Manager
Bridget on Landfill Authority
12976 St. Charles Rock Road
Bridget on, MO 63044

RE: Facility Upgrade Package and Permit Modification, Bridgeton Sanitary Landfill, Permit Number 118912, St. Louis County

Dear Mr. Ribaudo:

On March 3, 1997, the Department of Natural Resources' Solid Waste Management Program (SWMP) received a permit modification request on behalf of Bridgeton Landfill Authority for the Bridgeton Sanitary Landfill, Permit Number 118912. The proposed modification was submitted for the purpose of obtaining a vertical expansion, improving the leachate collection force main system, approval of a gas collection system, and other modifications to the landfill design.

The SWMP hereby approves the following parts of the addendum subject to the conditions stated herein:

- The leachate header and force main improvements;
- The gas control plan and associated pipe layout as an alternate to the previously approved gas recovery and processing facility;
- The storm water control plan;

- 4. The vertical expansion and associated final contours; and
- 5. The closure and post-closure plan and cost estimates of \$2,171,487 for closure and \$9,552,900 for post-closure care.

Raising the head levels in the leachate risers is specifically not approved.

This ap proval is not to be construed as compliance with any existing federal or state environmental laws other than the Missouri Solid Waste Management Law, nor should it be construed as a waiver for other regulatory requirements. This addendum is not to be construed as compliance with any existing local ordinances or zoning requirements; nor does it supersede any local permitting and/or zoning requirements.

The permit holder must ensure that the design and operational changes are properly implemented.

Conditions

The following conditions are an integral part of the permit addendum. Compliance with these conditions shall, in part, determine compliance with Permit Number 118912:

- 1. The permittee must submit either a revised or a new financial assurance instrument in the amount of \$11,724,387 specifying the amounts designated for closure and post-closure.
- The permittee must not, under any circumstances, allow the leachate levels to rise above the currently approved levels.
- 3. It does not appear that this modification will affect the radiologically contaminated areas. However, monitoring well D-14 may be affected. Please contact the department's Hazardous Waste Program, Superfund Section, prior to abandoning this or any other well which may be affected by the expansion activities.

Document.

The following document is hereby incorporated into Permit Number 118912:

Facility Upgrade and Permit Modification for the Laidlaw Waste System (Bridgeton), Inc. MDNR Permit Number 118912, Saint Louis County Permit Number 419, Saint Louis County, Missouri, Volumes I and II; prepared by Midwest Environmental Consultants, P.C., 2014 Williams Street, Jefferson City, Missouri 65109.

Mr. Greg Ribaudo Page 3

The department reserves the right to revoke, suspend, or modify this addendum and/or Permit Number 118912 after due notice, if the permit holder fails to maintain the facility in compliance with the Missouri Solid Waste Management Law and regulations, the terms and conditions of the permit, and the approved engineering plans and specifications.

Should you have any questions, please contact Mr. Steven Wyatt of the SWMP at (573) 751-5401.

Sincerely,

DEPARTMENT OF NATURAL RESOURCES

Stephen Mahfood

Director

SM:swb

c: Matt Kingsley, P.E., General Manager, Bridgeton Landfill Authority

Lee D. Tharp, P.E., Midwest Environmental Consultants

Mr. Brad Bomanz, St. Louis County Department of Health

Mr. Charles Wildt, St. Louis County Department of Health

Mr. Ed Galbraith, Chief, Enforcement Section, SWMP, MDNR

Mr. David Erickson, Geologist, Division of Geology and Land Survey, MDNR

St. Louis Regional Office, MDNR

STATE OF MISSOURI

Mel Camatian, Governor + David A. Shurr, Diocetor

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY ~
 P.O. Box 176 Jefferson City, MO 65102-0176

December 30, 1997

CERTIFIED MAIL # Z 289 843 539 RETURN RECEIPT REQUESTED

Mr. Steven M. Helm, Vice-President, Legal Allied Waste Industries, Inc. 15880 N. Greenway-Hayden Loop, Suite 100 Scotts-dale, AZ 85260

RE: Permit Modification for Bridgeton Sanitary Landfill, Permit Number 118912, St. Louis County

Dear Mr. Helm:

On December 12, 1997, the Department of Natural Resources' Solid Waste Management Program (SWMP) received your request for approval to change the permitted owner and operator of the Bridgeton Sanitary Landfill. Based on the submitted information, the SWMP hereby approves the request to change the owner and operator of the Bridgeton Sanitary Landfill from Laidlaw Waste Systems (Bridgeton), Inc. to Bridgeton Landfill, LLC.

DOCUMENT:

The following document is hereby incorporated by reference into Permit Number 118912

A letter dated December 10, 1997, to the SWMP from Mr. Steven M. Helm, Vice-President, Legal, Allied Waste Industries, Inc., requesting approval for the change of owner and operator for the Bridgeton Sanitary Landfill.

This approval is not to be construed as compliance with any existing federal or state environmental laws other than the Missouri Solid Waste Management Law; nor should this be construed as a waiver for any other regulatory requirements. This approval is not to be construed as compliance with any existing local ordinances or zoning requirements; nor does it supersede any local permitting and/or zoning requirements.

The department reserves the right to revoke, suspend, or modify this approval and/or Permit Number 118912 after due notice, if the permit holder fails to maintain the facility in compliance with the state's Solid Waste Management Law, the terms and conditions of the permit, and the approved engineering plans and specifications.

Mr. Steven M. Helm Page 2

If your have any questions or comments regarding this approval, please contact Mr. Karl Finke of my staff at (573) 751-5401, or at P.O. Box 176, Jefferson City, Missouri 65102-0176.

Sincerely,

SOLAD WASTE MANAGEMENT PROGRAM

Jim Hull

Director

JH:kfb

Mr. Jerry Brown, Chairman, Region L, SWMD Mr. Dan Fester, Acting Chief, Enforcement Section, SWMP

St. Louis Regional Office

STATE OF MISSOURI

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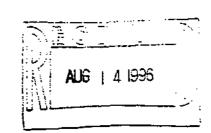
DEPARTMENT OF NATURAL RESOURCES

 DIVISION OF ENVIRONMENTAL QUALITY = P.O. Box 176 Jefferson City, MO 65102-0176

August 13, 1996

CERTIFIED MAIL # Z 776 294 837 RETURN RECEIPT REQUESTED

Mr. Larry Giroux
Landfill Manager
Laidlaw Waste Systems
(Bridgeton), Inc.
13570 St. Charles Rock Road
Bridgeton, MO 63044



RE: Groundwater Monitoring Plan for Laidlaw Waste Systems (Bridgeton), Inc., Sanitary Landfill, Permit Number 118912, St. Louis County

Dear Mr. Giroux:

The Department's Solid Waste Management Program (SWMP) has received a permit modification request for Laidlaw Waste Systems (Bridgeton), Inc., Sanitary Landfill, Permit Number 118912. The proposed modification was submitted for the purpose of updating the design of the landfill to include a groundwater monitoring system as per the requirements of 10 CSR 80-3.010(8).

The SWMP hereby approves the addendum subject to the conditions stated. The permit holder must ensure that the design and operational changes are properly implemented.

This approval is not to be construed as compliance with any existing federal or state environmental laws other than the Missouri Solid Waste Management Law; nor should it be construed as a waiver for other regulatory requirements. This addendum is not to be construed as compliance with any existing local ordinances or zoning requirements; nor does it supersede any local permitting and/or zoning requirements.

The following documents are hereby incorporated into Permit Number 118912.

Documents:

 A copy of the letter with attachments, dated October 6, 1995 from Golder Associates received by SWMP October 10, 1995 transmitting the revisions to the groundwater monitoring plan. Mr. Larry Giroux Page 2

- 2. A report entitled <u>Draft Groundwater Monitoring Plan Under RCRA Subtitle D for Laidlaw Waste Systems (Bridgeton) Inc.'s Bridgeton Active Sanitary Landfill Bridgeton. Missouri received September 20, 1995 by the SWMP.</u>
- 3. A report entitled <u>Draft Hydrogeologic Characterization</u>

 <u>Report for the Bridgeton Active Sanitary Landfill, Bridgeton Missouri</u>, two volumes dated September, 1995 and received September 20, 1995 by the SWMP.
- 4. A letter from Lee D. Tharp, P.E. of MEC dated January 27, 1993 to Stephen Jones, P.E. at SWMP concerning the post-closure care fund.

Conditions:

The following conditions are an integral part of the permit addendum. Compliance with these conditions shall, in part, determine compliance with Permit Number 118912.

- 1. Groundwater monitoring shall be conducted in accordance with the enclosed program entitled <u>Groundwater Monitoring Program</u>, <u>Laidlaw Waste Systems Bridgeton Landfill Permit Number 118912</u>, <u>July</u>, 1996.
- 2. All abandoned monitoring wells, exploratory boreholes and abandoned piezometers shall be plugged in accordance with 10 CSR 23 Chapters 1-6 "Permanent Abandonment of Wells."
- 3. A piezometer, PZ-102-RSS, was installed to replace PZ-102-SS. The Department's Division of Geology and Land Survey Wellhead Protection Unit has not received documentation of abandonment. Submit documentation regarding this issue to the Department's SWMP within sixty (60) days of the date of this letter. In addition, please submit documentation of abandonment of monitoring point 1204 which was to be abandoned by January 1, 1996.
- 4. All wells shall be constructed in accordance with Missouri Department of Natural Resources' (MDNR) Well Construction Codes 10 CSR 23 Chapters 1-6.
- 5. Post-Closure Plan
 - A. The permittee shall revise the post-closure plans and post-closure costs to reflect the changes in the frequency and types of groundwater and soil gas monitoring and in the post-closure care period from thirty (30) years to perpetual care for leachate removal.

B. The post-closure plans shall be revised to provide for replacement or repair/maintenance of leachate and gas pumps, replacement of leachate and gas wells.

Three (3) copies of the revised post-closure plans and cost estimates shall be submitted to the SWMP within sixty (60) days of receipt of this letter.

- 6. The report did not follow the work plan as submitted to MDNR in 1994. On page 18 of the work plan, it is stated that water level measurements will be taken from the proposed piezometers, and from existing groundwater monitoring wells, piezometers, leachate collection pumps, gas wells and gas collection manholes over a period of twelve (12) months. Data from only a few of the above collection points have been submitted. Within sixty (60) days of receipt of this addendum, please submit all of the required measurements.
- 7. A grout curtain was installed in the northeast corner of the southern quarry. The grout curtain installed in 1985 is in close proximity to PZ-1201-SS, PZ-202-SS, PZ-103-SS and the PZ-104-SS series of piezometers. This may affect water level measurements and hydraulic conductivity tests. The SWMP believes that PZ-1201-SS should be properly abandoned due to its proximity to the grout curtain and other piezometers finished at the same level. This piezometer should be properly abandoned in accordance with Missouri Well Construction Rules 10 CSR 23 Chapters 1-6.
- 8. Before constructing the monitoring points 1242-1245, the area around the leachate pond must be characterized to ensure correct placement and effective target monitoring zones.
- 9. Continue to monitor PZ-203-SS (Monitoring Point 1235). If further water elevation data indicates it is not yielding significant results, it should either be redrilled or replaced. If it is replaced, the old borehole should be reconstructed as a landfill gas monitoring well or abandoned in accordance with Missouri Well Construction Rules 10 CSR 23 Chapters 1-6.

It should be noted that PZ-200-SS, PZ-201-SS and PZ-204-SS have been excluded from the groundwater monitoring program. They will be used to monitor for landfill gas.

The department reserves the right to revoke, suspend, or modify this addendum and/or Permit Number 118912 after due notice, if the permit holder fails to maintain the facility in compliance Mr. Larry Giroux Page 4

with the state's Solid Waste Management Law and Rules, the terms and conditions of the permit and the approved engineering plans and specifications.

Should you have any questions, please contact the Special Projects Unit of the Solid Waste Management Program at (573) 751-5401.

Sincerely,

SOLID WASTE MANAGEMENT PROGRAM

Jim Hull

Chief, Engineering and Planning Section

JH:swc

Enclosures

c: Lee D. Tharp, P.E., Midwest Environmental Consultants

Ms. Sue Taylor, St. Louis County Department of Health

Mr. Charles Wildt, St. Louis County Department of Health

Mr. Jim Bell, Chief, Enforcement Section, SWMP

Mr. Jim Brown, Chief, Environmental Assistance Unit, DGLS

St. Louis Regional Office

GROUNDWATER MONITORING PROGRAM Laidlaw Waste Systems Bridgeton Landfill Permit Number 118912 February, 1996

A. Monitoring Points

The monitoring points listed below are those for which the Laidlaw Waste Systems (Bridgeton) Inc. is responsible to report bailing, purging, sampling and field observations, and to provide representative sampling parameter analyses. The original location of proposed monitoring point designations and the Solid Waste Management Program's (SWMP) four digit monitoring point numbers are listed below for each point. These four digit numbers shall appear on subsequent groundwater monitoring report forms submitted for any semi-annual and quarterly sampling events. These monitoring numbers shall be referenced in future correspondence associated with this permit.

UPGRADIENT/ DOWNGRADIENT /INWARD	MONITORING WELL LOCATION	FOUR DIGIT MONITORING NUMBER
Inward Gradient	Located at N1067302.42 and E516903.56 identified as PZ-1201-SS, monitoring 10 feet below the water table in the lower St. Louis formation	1201
Inward Gradient	Located near N1066400 and E515900, TO BE ABANDONED BY 1/1/96	1204
Inward Gradient	Located near N1067499 and E515600, TO BE ABANDONED BY 7/1/96	1205
Inward Gradient	Located near N1067400 and E515600, TO BE ABANDONED BY 7/1/96	1206
Inward Gradient	Located at N1068867.81 and E517175.03 identified as P2-100-SS, monitoring 10 feet below the water table in the middle to upper St. Louis formation	1207
Inward Gradient	Located at N1068851.79 and E517195.45 identified as PZ-100-SD, monitoring deep in the basal Salem formation	1208

UPGRADIENT/	MONITORING WELL LOCATION	FOUR DIGIT
DOWNGRADIENT /INWARD		MONITORING NUMBER
Inward Gradient	Located at N1068842.03 and E517211.63 identified as PZ-100-KS, monitoring the upper Keokuk formation	1209
Inward Gradient	Located at N1068472.89 and E516622943 identified as PZ-101-SS, monitoring 10 feet below the water table in the lower St. Louis formation	1210
Inward Gradient	Located at N1068131.86 and E516858.81 identified as PZ-102R-SS, monitoring 10 feet below the water table in the middle St. Louis formation	1211
Inward Gradient	Located at N1067660.40 and E516723.54 identified as PZ-103-SS, monitoring 10 feet below the water table in the lower St. Louis formation	1212
Inward Gradient	Located at N1067028.01 and E516847.19 identified as PZ-104-SS, monitoring 10 feet below the water table in the lower St. Louis formation	1213
Inward Gradient	Located at N1067013.26 and E516834.43 identified as PZ-104-SD, monitoring deep in the lower Salem formation	1214
Inward Gradient	Located at N1066993.15 and E516820.50 identified as PZ-104-KS, monitoring the upper Keokuk formation	1215
Inward Gradient	Located at N1066421.35 and E516230.23 identified as PZ-105-SS, monitoring 10 feet below the water table in the lower/basal St. Louis formation	1216
Inward Gradient	Located at N1066726.29 and E515399.94 identified as PZ-106-SS, monitoring 10 feet below the water table in the upper Salem formation	1217

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UPGRADIENT/ DOWNGRADIENT /INWARD	MONITORING WELL LOCATION	FOUR DIGIT MONITORING NUMBER
Inward Gradient	Located at N1066715.14 and E515415.96 identified as PZ-106-SD, monitoring deep in the lower Salem formation	1218
Inward Gradient	Located at N1066703.87 and E515432.10 identified as PZ-106-KS, monitoring the upper Keokuk formation	1219
Inward Gradient	Located at N1067163.45 and E515254.52 identified as PZ-107-SS, monitoring 10 feet below the water table in the lower St. Louis formation	1220
Inward Gradient	Located at N1067678.37 and E515972.61 identified as PZ-108-SS, monitoring 10 feet below the water table in the middle Salem formation	1221
Inward Gradient	Located at N1068011.70 and E516144.36 identified as PZ-109-SS, monitoring 10 feet below the water table in the middle to upper Salem formation	1222
Inward Gradient	Located at N1068336.09 and E515919.72 identified as PZ-110-SS, monitoring 10 feet below the water table in the lower St. Louis formation	1223
Inward Gradient	Located at N1068638.11 and E515834.57 identified as PZ-111-SD, monitoring 10 feet below the water table in the lower/basal Salem formation	1224
Inward Gradient	Located at N1068620.78 and E515850.23 identified as PZ-111-KS, monitoring the upper Keokuk formation	1225
Inward Gradient	Located at N1069002.00 and E515674.01 identified as PZ-112-AS, monitoring 10 feet below the water table in the shallow alluvium	1226

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		SPECIAL MARK
UPGRADIENT/ DOWNGRADIENT /INWARD	MONITORING WELL LOCATION	FOUR DIGIT MONITORING NUMBER
Inward Gradient	Located at N1069224.31 and E515747.72 identified as PZ-113-AS, monitoring 10 feet below the water table in the shallow alluvium	1227
Inward Gradient	Located at N1069233.33 and E515759.85 identified as PZ-113-AD, monitoring the water table at the base of the basal alluvium	1228
Inward Gradient	Located at N1069242.39 and E515776.57 identified as PZ-113-SS, monitoring 10 feet below the water table in the upper Salem formation	1229
Inward Gradient	Located at N1069418.88 and E516768.25 identified as PZ-114-AS, monitoring 10 feet below the water table in the alluvium	1230
Inward Gradient	Located at N1069408.54 and E516755.35 identified as PZ-115-SS, monitoring 10 feet below the water table in the middle St. Louis formation	1231
Inward Gradient	Located at N1066410.28 and E515843.88 identified as PZ-116-SS, monitoring 10 feet below the water table in the middle Salem formation	1232
Inward Gradient	Located at N1067831.76 and E516846.40 identified as PZ-201A-SS, monitoring 10 feet below the water table in the middle St. Louis formation	1233
Inward Gradient	Located at N1067320.25 and E517101.58 identified as PZ-202-SS, monitoring 10 feet below the water table in the middle to upper St. Louis formation	1234
Inward Gradient	Located at N1066661.50 and E516607.70 identified as PZ-203-SS, monitoring 10 feet below the water table in the middle St. Louis formation	1235

UPGRADIENT/ DOWNGRADIENT	MONITORING WELL LOCATION	FOUR DIGIT
/INWARD		NUMBER
Inward Gradient	Located at N1066429.82 and E515556.28 identified as PZ-204A-SS, monitoring 10 feet below the water table in the lower to middle St. Louis formation	1236
Inward Gradient	Located at N1067463.60 and E515463.34 identified as PZ-205-AS, monitoring 10 feet below the water table in the base of the shallow Alluvium	1237
Inward Gradient	Located at N1067483.54 and E515477.78 identified as PZ-205-SS, monitoring 10 feet below the water table in the middle St. Louis formation	1238
Inward Gradient	Located at N1068030.83 and E515809.45 identified as PZ-206-SS, monitoring 10 feet below the water table in the basal St. Louis formation	1239
Inward Gradient	Located at N1059644.67 and E516037.64 identified as PZ-207-AS, monitoring 10 feet below the water table in the shallow Alluvium	1240
Inward Gradient	Located at N1069219.14 and E517169.45 identified as PZ-208-SS, monitoring 10 feet below the water table in the middle St. Louis formation	1241
To be determined	Located near N1066300 and E514800 monitoring the shallow groundwater in the alluvium	1242
To be determined	Located near N1066200 and E514400 monitoring the shallow groundwater in the alluvium	1243
To be determined	Located near N1066700 and E514300 monitoring the shallow groundwater in the alluvium	1244
To be determined	Located near N1066900 and E514800 monitoring the shallow groundwater in the alluvium	1245

Existing or new wells improperly constructed or screened to monitor improper or inadequate zones shall be properly abandoned.

All wells shall be constructed in accordance with Missouri Department of Natural Resources Well Construction Rules 10 CSR 23-1 through 6.

Background water levels, including any seasonal variations need to be established. Water levels shall be measured monthly over a course of one (1) year after development and approval of each well. Water level measurements shall be taken after each significant rainfall event (rainfall amounts of one (1) inch or more within a 72 hour period) for a period of one (1) year. This monitoring program shall be in addition to the monthly water level measurements.

B. Sampling Frequency/Parameters

I. Background Sampling

Background sampling shall consist of at least four independent samples as described in 10 CSR 80-3.010(8)(C)2.E. for all monitoring points. The four independent samples should be taken over the first four quarters after the date of this letter. Each background sample shall be for the groundwater monitoring parameters contained in both the Semi-Annual/Background and Quarterly Lists as given on the attached list entitled <u>Groundwater Monitoring Parameters</u>. During background sampling, downgradient wells shall be sampled during the first and third quarters for the parameters contained in the Quarterly List, and during the second and fourth quarters for the parameters contained in both the Quarterly List and the Semi-Annual/Background List.

II. Detection Monitoring

All wells except wells designated 1233, 1234, 1236, 1239, 1240, and 1241 shall be monitored as follows.

After background sampling has been completed, inward gradient monitoring points to be sampled for groundwater monitoring parameters shall be sampled as follows: First and third quarters, samples shall be taken for the parameters contained in the Quarterly List. Second and fourth quarters, samples shall be taken for the parameters contained in both the Quarterly List and the Semi-Annual/Background List.

All first and third quarter sampling results shall be submitted to the department's SWMP within (30) days from the date the sample is obtained. All second and fourth quarter sampling results shall be submitted to the

department's SWMP within ninety (90) days from the date the sample is obtained.

Wells designated 1233, 1234, 1236, 1239, 1240, and 1241 shall be monitored quarterly for groundwater elevation, temperature, pH and conductivity. These readings shall be reported with the sampling data from the other wells.

All groundwater sampling and reporting shall be conducted in accordance with the attached department's technical bulletin entitled <u>Collection</u>, <u>Handling and Reporting Procedures for Groundwater Sampling</u>, latest revision.

C. Groundwater Monitoring Program

Additional hydrogeologic characterization through subsurface sampling and testing could alter the interpretation of previous hydrogeologic investigations. Approval of this Groundwater Monitoring Program does not preclude it from any future revision.

D. <u>Inquiries</u>

All inquiries concerning these reporting procedures and/or any discussion of possible deviations from these reporting procedures should first be directed to the Special Projects Unit of the Solid Waste Management Program at (573) 751-5401 for prior consideration by the department.

GROUNDWATER MONITORING PARAMETERS

Semi-Annual/Background List

Inorganic Constituents

Ammonia as N (NH3) Antimony (Sb) Arsenic (As) Barium (Ba) Beryllium (Be) Boron (B) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Fluoride (F) Hardness (calculated)

Magnesium (Mg) Manganese (Mn) Mercury (Hg) Nickel (Ni) Nitrate/Nitrite (NO3/NO2) Total Phosphorus (P) Selenium (Se) Silver (Ag) Sodium (Na) Sulfate (SO4)

Lead (Pb)

.

Thallium (T1) Total Organic Carbon

Vanadium (Va) Zinc (Zn)

Organic Constituents

Acetone Acrylonitrile Benzene Bromochloromethane Bromodichloromethane Tribromomethane Carbon Disulfide Carbon Tetrachloride Chlorobenzene Chloroethane Trichloromethane Chlorodibromomethane 1,2-Dibromo-3-chloropropane 1,2-Dibromoethane 1,2-Dichlorobenzene 1,4-Dichlorobenzene trans-1,4-Dichloro-2-butene 1,1-Dichloroethane 1,2-Dichloroethane 1,1-Dichloroethene cis-1,2-Dichloroethene trans-1,2-Dichloroethene 1,2-Dichloropropane cis-1,3-Dichloropropene

trans-1,3-Dichloropropene Ethylbenzene 2-Hexanone Bromomethane Chloromethane Dibromomethane Dichloromethane 2-Butanone Iodomethane 4-Methyl-2-pentanone Styrene 1,1,1,2-Tetrachloroethane 1,1,2,2-Tetrachloroethane Tetrachloroethene Toluene 1,1,1-Trichloroethane 1,1,2-Trichloroethane Trichloroethene Trichlorofluoromethane 1,2,3-Trichloropropane Vinyl acetate Vinyl chloride Xylenes

Ouarterly List

Chemical Oxygen Demand (COD) Chlorides (Cl)

Total Dissolved Solids (TDS)

Specific Conductance

(Conductivity corrected to 25°C)

Iron (Fe)

ALL METALS ARE TOTAL RECOVERABLE - DO NOT FIELD FILTER SAMPLES **ALL FIELD OBSERVATIONS SHOULD BE REPORTED ON THE SWMP'S FORMS**

DEPARTMENT OF NATURAL RESOURCES

 DINTSBON OF ENVIRONMENTAL QUALITY = P.O. Bux 176 Jefferson City, MO 05102-0176

Occober 28, 1993

Mr. Miles Stotts Environmental Compliance Manager Laidlaw Waste Systems, Inc. 13570 St. Charles Rock Road Bridgeton, MO 63044

RE: Permit Modification Addendum for West Lake (Bridgeton) Sanitary Landfill, Solid Waste Disposal Area Operating Permit Number 118912, St. Louis County

Dear Mr. Stotts:

A permit modification, submitted as an addendum to the West Lake (Bridgeton) Sanitary Landfill (Permit Number 118912) was filed with the Missouri Department of Natural Resources on October 8, 1993. The proposal requests modifying the length of the permit from a fixed term to a term of the anticipated life of the facility in order to be consistent with Chapter 260.205.2(4) RSMo.

The permit addendum is hereby approved as submitted on the document listed below. This document is attached hereon and made an official part of permit number 118912.

 The letter dated October 8, 1993 and received October 8, 1993 from Mr. Miles Stotts, Laidlaw Waste Systems, to Mr. Warner Sherman, Solid Waste Management Program, which requests an extension of the facility's operating permit.

This approval is not to be construed as compliance with any existing federal or state environmental laws other than the Missouri Solid Waste Management Law, nor should this be construed as a waiver for other regulatory requirements. This addendum is not to be construed as compliance with any existing local ordinances or zoning requirements nor does it supersede any local permitting and/or zoning requirements. The design, construction and operation of the landfill and related landfill appurtenances shall conform to all applicable water quality laws, rules, regulations, and permits which are enforced by the department's water Pollution Control Program.

Mr. Miles Stotts Page 2

The department reserves the right to revoke, suspend, or modify this addendum and/or permit number 118912 after due notice:

- If it is found that the holder of the permit is in violation of the Missouri Solid Waste Management Law or Rules.
- For failure to operate in accordance with the approved plans, specifications, and operating procedures.
- For failure to comply with any and all conditions of the permit.
- For creating a public nuisance, health hazard, or causing environmental pollution.
- 5. If it is found that additional construction or alteration of the solid waste disposal area is necessary to comply with any and all rules promulgated under and in accordance with the Missouri Solid Waste Management Law.

Should you have any questions, please contact the Solid Waste Management Program at (314) 751-5401.

Sincerely,

SOLID WASTE MANAGEMENT PROGRAM

Harold T Horton

Director

HTM:fdk

c: St. Louis Regional Office

. Jim Bell, SWMP Enforcement Section

St. Louis-Jefferson Solid Waste Management District

JOHN ASHCROFT

G. TRACY MEHAN III
Director



STATE OF MISSOUR

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY P.O. Box 176 Jefferson City, MO 65102 Orision of Environmental Quality Division of Geology and Land Survey Division of Management Services Divisional Parks, Recreation, and Historic Preservation

Division of Energy

BILL Read

January 11, 1991

Mr. Miles Stotts Regional Environmental Manager Laidlaw Waste, Inc P.O. Box 5192 Kansas City, MO 64132

Dear Mr. Stotts:

The Waste Management Program (WMP) approves the following requested changes in the groundwater monitoring program at the Westlake Landfill, permit number 118912, as proposed in the December 19, 1990, letter from your consultant Foth and Van Dyke:

- Proper abandonment of wells 1202 and 1203 and removal from the WMP's groundwater monitoring program;
- Installation of one bedrock monitoring well along the southwest side of the former quarry;
- Installation of one nested bedrock monitoring well, approximately 220 foot depth, along the northwest side of the former quarry; and
- 4. Installation of one nested bedrock monitoring well, approximately 150 foot depth, along the northwest side of the former quarry.

The WMP should be notified of the date and time installation will occur to observe the well construction. Well abandonment procedures, well as-builts, boring logs and a background sample for each newly constructed well must be submitted by April 1, 1991, to the Waste Management Program. A new permit on groundwater monitoring will be issued to Westlake Landfill upon receipt of the submittals.

Mr. Miles Stotts January 11, 1991 Page 2

If you have any further questions or comments, please call me at (314) 751-3176.

Sincerely,

DIVISION OF ENVIRONMENTAL QUALITY.

Janese A. Neher, P.E. Enforcement Section

Waste Management Program

JAN:sw

cc: Mr. Rodney Bloese, Foth & Van Dyke

St. Louis Regional Office



JOHN ASH CROFT

FREDERICK A. BRUNNER

STATE OF MISSOURI DEPARTMENT OF NATURAL RESOURCES

Division of Energy
Division of Environmental Quality
Division of Geology and Land Sorve;
Division of Management Services
Division of Parks and
Historic Preservation

OFFICE OF THE DIRECTOR 1915 Southridge Drive P.O. Box 176 Jefferson City, Missouri 65102 Telephone 314-751-4422

CERTIFIED MAIL P196186810

November 18, 1965

Mr. William McCullough, President West Lake Landfill, Inc. 13570 St. Charles Rock Road Bridgeton, MO 63044

Dear Mr. McCullough:

RE: Solid Waste Disposal Area Operating Permit #118912.

An Application for Operating Permit has been filed with the Missouri Department of Natural Resources requesting a permit to operate a sanitary landfill designated in the application as the West Lake Landfill, Inc. Sanitary Landfill. The application was filed by West Lake Landfill, Inc. and submitted to the Department of Natural Resources for review and approval. The application includes engineering plans, and specifications, operating procedures and subsequent correspondence or amendments for the subject facility. The application has been prepared by Burns & McDonnell. The application has been reviewed for compliance with the Missouri Solid Waste Management Law (Section 260.200 to 260.245, RSMo, 1978) and the Missouri Solid Waste Management Rules and Regulations.

In accordance with Section 260.205, Paregraph 2, RSMo, 1978, the Missouri Department of Natural Resources hereby approves the application and issues Persit Number 118912 to West Lake Landfill, Inc. for the operation of a solid weste disposal area set forth in the application as the West Lake Landfill, Inc. Sanitary Landfill. This permit applies only to that tract of land of approximately 52 acres, as described by the engineering plans, specifications and operating procedures submitted to the department. This permit is issued for a period of ten (10) years. This permit expires at midnight on November 18, 1995, unless a complete application for a permit is submitted to the Weste Management Program at least 12 months before the expiration date. If an application for a permit is made prior to November 18, 1994, then this permit and its conditions remain in effect

until the effective date of a new permit, or effective date of denial of the application for a new permit. The department shall review this permit approximately five (5) years after the date of issuance to determine the compliance status of the landfill and shall modify the permit as necessary to assure that the facility continues to comply with applicable requirements of the provisions of Sections 260.200 to 260.245 RSHo and the rules and regulations adopted thereunder.

The final approved engineering plans, specifications and operating procedures described below are attached hereon and made an official part of this permit:

- 1. The completed Application for Operating Permit form, dated September 25, 1984, designating West Lake Landfill, Inc. as both the owner and operator of the facility.
- 2. The engineering report entitled <u>Permit Application and Engineering Report for West Lake Landfill. Inc. Sanitary Landfill Expansion Bridgeton. Missouri, 1985; prepared by Burns & McDonnell; received July 5, 1985.</u>
- 3. The operations manual entitled <u>West Lake Landfill, Inc. Sanitary</u>
 <u>Landfill Expansion Operations Manual, 1985; prepared by Burns & McDonnell; received July 5, 1985.</u>
- 4. Plan Sheets entitled <u>West Lake Landfill. Inc. Senitary Landfill.</u>

 <u>Bridgeton. Missouri. 1984</u>; prepared by Burns & McDonnell, including: drawing 1, revision 1; drawing 2, revision 1; and drawings 3 through 5 (no revisions).
- 5. Letter dated September 25, 1985, to Mr. Thomas R. Gredell, P.E. from Mr. Robert M. Robinson, P.E. (including attachments) providing additional details of the landfill design and operation.
- Document entitled Part IV. Post Closure Plan; received October 3, 1985; replaces the section of the engineering report entitled Part IV. Post Closure Plan.
- Letter dated October 1, 1985, to Mr. William McCullough from Mr. Robert M. Robinson, P.E. (including attachments), received October 3, 1985, providing details of the Hazardous Waste Contingency Plan and the Waste Disposal Monitoring Plan.
- Letter dated March 14, 1985, to Mr. Thomas R. Gredell, P.E. from Mr. Robert M. Robinson, P.E. providing additional details of the landfill design and operation.

- 9. Report entitled <u>Spring Grouting Summary</u>. <u>West Lake Landfill</u>. <u>Inc.</u>
 <u>Bridgeton</u>. <u>Missouri</u>, received April 30, 1985; prepared by <u>Drilling</u>
 Service Company; dated February 15, 1985, through April 18, 1985.
- 10. Report entitled Spring Grouting Summary, Grout Curtain #2. Vest Lake Landfill. Inc. Bridgeton, Missouri, received October 3, 1985; prepared by Drilling Service Company; dated May 23, 1985, through August 2, 1985.
- Letter dated July 5, 1985, to Mr. John D. Doyle, P.E. from Mr. Robert M. Robinson, P.E. providing additional information concerning the grouting reports.
- 12. Report entitled <u>Hydrogeologic Investigation</u>. <u>West Lake Landfill</u>.

 <u>Preliminary Phase Report</u>. <u>January</u>. 1985; prepared by Burns & McDonnell; received March 18, 1985.
- 13. Report entitled Interim Report on the Proposed Groundwater Sampling Program for the Primary Phase of the Hydrogeologic Investigation, West Lake Landfill, St. Louis County, Missouri, October 1985; received October 8, 1985.

Approval of the application and issuance of this permit is given with the explicit understanding that the sanitary landfill will be developed and operated in compliance with the approved plans, specifications and operating procedures, with the conditions of the permit, with the Missouri Solid Waste Rules and Regulations, and in accordance with the Missouri Solid Waste Management Law. This permit is not to be construed as compliance with any existing local ordinances or zoning requirements. This permit for operation of a solid waste disposal area is issued only to the person named in the application and shall not be transferable.

Conditions

The following conditions are an integral part of the permit. Compliance with these conditions shall, in part, determine compliance with the permit.

- 1. This permit, Solid Waste Disposal Area Operating Permit #118912, encompasses the proposed expansion area and additional solid waste fill by West Lake Landfill, Inc. over the disposal areas permitted under Solid Waste Disposal Area Operating Permit Numbers 118906 and 118909 issued to West Lake Landfill, Inc. This document supersedes and replaces the previous permits and permit documents.
- West Lake Landfill, Inc. shall establish and maintain an escrov fund for the purpose of providing post-closure care and maintenance of the landfill. The amount and manner of maintaining this fund shall be as described in the approved permit documents.

- A. Fifty percent of the first yearly cost of this fund shall be deposited in this fund prior to acceptance of solid waste.
- B. The existence and maintenance of this fund shall be verified to the department by the permittee prior to acceptance of solid waste. The maintenance of this fund shall be verified to the department annually prior to the anniversary date of establishment of the fund, in writing, by the financial institution wherein this fund is deposited.
- 3. An environmental assessment of the entire landfill site shall be initiated by West Lake Landfill, Inc. or any successor or assign ("hereinafter West Lake") immediately after the issuance of this permit. This assessment, including hydrogeologic investigation, shall be completed by November, 1986, and shall be used as the basis for the development of a monitoring program and feasibility study to assess necessary remedial action. The conclusions of the feasibility study shall be submitted to the department within two years after the issuance of this permit. Implementation of necessary remedial action will be undertaken by West Lake in accordance with reasonable design and construction scheduling. Additional groundwater monitoring requirements will be required, based on review of the hydrogeologic investigation and feasibility study.
- 4. Initial training of the waste inspector (spotter) shall be provided so that he/she is able to adequately perform the duties as described in the permit documents. At a minimum, the initial training for this employee shall include:
 - A. Familiarization with 10 CSR 80-3.010(3), solid waste excluded.
 - B. Identification and recognition of unacceptable wastes, as described in 10 CSR 80-3.010(3).
 - C. Familiarization with the necessary procedures to obtain approval of special waste disposal requests.
 - D. Provision of a list of all special wastes approved for disposal by the department.
- 5. Intermediate cover is not required until the fill is above the quarry rim, as proposed in the approved permit documents.
- Leachate and sludge from leachate treatment shall be collected, treated and disposed of as per the approved permit documents.
 - A. Leachate shall be treated and disposed of in accordance with all applicable water quality laws, rules, regulations, and policies as enforced by the Water Pollution Control Program, Missouri Department of Natural Resources.

- B. West Lake Landfill, Inc. shall two times a year test the leachate and leachate treatment sludge for hazardous waste characteristics pursuant to 10 CSR 25-4.010 (2 through 5) and submit the results of such tests within sixty days to Missouri Department of Natural Resources. If hazardous wastes are detected in the leachate or sludge West Lake Landfill, Inc. shall implement proper handling of such hazardous wastes in accordance with the Missouri Hazardous Waste Management law, Rules and Regulations.
- C. Sludge from the on-site leachate treatment system is acceptable for disposal at the landfill, unless tested to be a characteristic hazardous waste as per condition 68.
- D. Static leachate levels in the collection sumps in the unfilled area of the quarry, as shown in the approved permit documents, will be maintained at a level less than 30 feet above the base of the sump. The leachate level shall be checked monthly, recorded and made available upon department request.
- E. Static leachate levels in the previously filled areas of the quarry, as shown on the approved permit documents, shall be maintained at a level less than 50 feet above the base of the sump. The leachate level shall be checked monthly, recorded and made available upon department request.
- 7. A. Groundwater monitoring shall be required as per the attached document entitled <u>Monitoring Program for the West Lake Landfill.</u>
 Inc. Sanitary Landfill. The wells shall be sampled within 30 days of issuance of the permit. The first sample will be used as a background sample and should be analyzed for the extended list of parameters, as if it were an annual analysis.
 - B. Three groundwater monitoring wells have been installed in the area of the grout curtain in the northeast corner of the large quarry. Two wells were installed during the placement of the initial grout curtain and were designated as groundwater monitoring wells (CMM) #4/III and (GMM) #14/III in the application for operating permit. The third well was installed during the placement of grout curtain #2 and was designated as groundwater monitoring well (GMM) #17/IV in the application for operating permit. The water level in these wells shall be monitored monthly, recorded, and made available upon department request.
 - C. All three wells will be monitored, unless the department is requested to reevaluate the monitoring program. If requested and approved, one or more of the wells can be eliminated from the sampling program if hydraulic communication between the wells is verified.

- D. Additional sampling points may be added to the monitoring program depending on the results of the hydrogeologic investigation (See Condition #4).
- 8. The following previously approved special wastes are approved for disposal under permit #118912:
 - A. Fly ash derived from a coal burning industrial boiler, generated by McDonnell Douglas Corporation; 400 tons per month; approved November 1, 1984.
 - B. Incinerator ash derived from municipal refuse incineration, generated by McDonnell Douglas Corporation; 800 cubic yards per month; approved November 1, 1984.

A special waste disposal request will have to be submitted to, and approved by, the Waste Management program prior to accepting any other special waste as per 10 CSR 80-3.010(3).

- 9. Each eight inch lift of the twelve foot wide pad in the northeast corner should be tested for soil density to confirm that a minimum compaction of 90% of the standard proctor density is obtained.
- 10. All surface water discharges shall be made in accordance with all applicable water quality laws, rules, regulations and policies as enforced by the Water Pollution Control Program, Missouri Department of Natural Resources.
- 11. Methane gas shall be vented or burned in accordance with all applicable air quality laws, rules, regulations, and policies as enforced by the appropriate air pollution control regulatory agency.
- 12. Department review and approval of any planned final use is required prior to implementing a designated, commercial, final use of the site.
- 13. Within six months of the date of issuance of the permit, two copies of a final, comprehensive engineering report shall be submitted to the Waste Management Program. This report shall incorporate all present design and operating information into one reference manual detailing the final approved plans and specifications for the design and operation of the proposed samitary landfill. This report shall incorporate all information required by regulation, eliminate all contradictory information, and include all revisions and additions to the original application for operating permit, as approved.

Facility Description

The proposed sanitary landfill is located in U.S. Survey 131, Township 46 North, Range 5 East, St. Louis County, Missouri. The proposed site consists of a total of approximately 214 acres of which approximately

52 acres will be utilized for the sanitary landfill. The types of wastes to be accepted will consist of municipal solid waste, bulky waste, dead animals, demolition and construction waste, and brush and untreated wood waste. Approval to dispose of special wastes other than the wastes listed above (except hazardous wastes, explosives, or radioactive material) will be considered on a case-by-case basis, as provided in 10 CSR 80-3.010(3). The area method of sanitary landfill operation will be utilized. The fill heights and area locations are to be completed as shown on the approved engineering plans and specifications and maintenance of the area shall be provided in accordance with the post-closure maintenance plan. Upon completion of the landfill, it will be used for as yet undesignated commercial operations.

All fencing, gates, equipment, maintenance buildings, all-weather access roads, signs, surface-water control devices, operating equipment, standby equipment and other necessary appurtenances shall be provided as per the final approved plans, specifications and operating procedures. The plans, specifications and operating procedures described above have been examined as to sanitary features of design which might affect the operation of the solid waste disposal area as a sanitary landfill.

Modification and Termination of Permit

The department reserves the right to revoke or modify this permit after due notice:

- If it is found that the holder of the permit is in violation of the Missouri Solid Waste Management Law, or the Missouri Solid Waste Management Rules and Regulations;
- For failure to operate in accordance with the approved plans, specifications and operating procedures;
- For creating a public nuisance, health hazard or causing environmental pollution;
- 4. For failure to comply with any and all conditions of the permit, as described herein;
- If it is found that additional construction or alteration of the solid waste disposal area is necessary to comply with any and all rules and regulations promulgated in accordance with the Missouri Solid Waste Management Law;
- If it is determined a facility has not been operated for a period of one year.

This permit shall become void after notice to the department by the person named in the permit that said person has discontinued operation of the disposal area.

Upon initiation of operation at your landfill, you will have indicated your acknowledgement and acceptance of this permit and conditions of the permit. If you have any questions, please contact the Waste Management Program at (314) 751-3241 or P. O. Box 176, Jefferson City, MD 65102.

Sincerely,

DEPARTMENT OF NATURAL RESOURCES

Frederick A. Brunner, Ph.D., P.E.

Director

FAB: mpl

cc: East-West Cateway Regional Planning Commission Hr. Robert M. Robinson, P.E. Missouri Department of Natural Resources Facility Operating Permit Permit No. 218912



CERTIFIED MAIL P395083426

September 17, 1984

Mr. William J. McCullough 13570 St. Charles Rock Road Bridgeton, MO 63044

RE: Solid Waste Disposal Area Operating Permit #218912

Dear Mr. McCullough:

An application for Operating Permit has been filed with the Missouri Department of Natural Resources requesting a permit to operate a demolition landfill designated in the application as the West Lake Landfill, Inc. The application was filed by William J. McCullough and submitted to the Department of Natural Resources for review and approval. The application includes engineering plans, and specifications, operating procedures and subsequent correspondence or amendments for the subject facility. The application has been prepared by Reitz & Jens, Inc. The application has been reviewed for compliance with the Missouri Solid Waste Management Law (Sections 260.200 to 260.245, RSMo. 1978) and the Missouri Solid Waste Management Rules and Regulations.

In accordance with Section 260.205, Paragraph 2, RSMo. 1978 the Missouri Department of Natural Resources hereby approves the application and issues Permit Number 218912 to West Lake Landfill. Inc. for the operation of a solid waste disposal area set forth in the application as the West Lake Landfill. This permit applies only to that tract of land of approximately 22 acres, as described by the engineering plans, specifications and operating procedures submitted to the Department. The final approved engineering plans, specifications and operating procedures described below are attached hereon and made an official part of this permit:

Documents

- The completed Application for Operating Permit form dated September 10, 1982, which signified William J. McCullough as the operator of the facility and West Lake Landfill, Inc. as the legal owner of the land and/or facility.
- The engineering report titled <u>Memorandum Report West Lake Demolition Landfill</u>, <u>Bridgeton</u>, <u>MO</u>., dated August 1984, prepared by Reitz & Jens. Inc., and sealed by David E. Murray, P. E.

Mr. William J. McCullough Page 2 September 17, 1984

- 3. Plan sheet one of two titled "West Lake Landfill, Inc. Demolition Landfill Grading Plan" revised August 16, 1984 and plan sheet two of two titled "West Lake Landfill, Inc. Demolition Landfill Cross Sections" revised August 16, 1984. Prepared by David E. Murray, P. E., of Reitz & Jens, Inc.
- 4. Correspondence dated August 17, 1984 from David E. Murray, P. E. of Reitz & Jens, clarifying design and operating procedures.
- 5. Correspondence dated August 24, 1984 from
 David E. Murray P. E. of Reitz & Jens, providing background information of West Lake Landfill, Inc.

Approval of the application and issuance of this permit is given with the explicit understanding that the demolition landfill will be developed and operated in compliance with the plans, specifications and operating procedures, with the conditions of the permit, with the Missouri Solid Waste Rules and Regulations, and in accordance with the Missouri Solid Waste Management Law. This permit is not to be construed as compliance with any existing local ordinances or zoning requirements. This permit for operation of a solid waste disposal area is issued only to the person named in the application and shall not be transferable.

Conditions

The following conditions are an integral part of the permit. Compliance with these conditions shall, in part, determine compliance with the permit.

- The equipment will be available and operated to spread and compact the solid waste as received or at anytime the quantity of waste has accumulated to 200 cubic yards without being spread and compacted as per 10 CSR 80-4.010(12)(C)(2).
- Peripheral drainage in ditches, dikes, and terraces will be maintained in such a manner so as to prevent ponding, and drainage into the surrounding fill areas.
- Upon closing of the demolition landfill, a detailed description, on a licensed surveyor's plat, shall be recorded with the recorder of deeds in St. Louis County as per 10 CSR 80-4.010(14)(C)(2).
- 4. Records will be maintained covering vertices state. All and each day that all solid waste is inverse that the or cover material as per 10 CSR 50-4.01 10 10 5 3

Mr. William J. McCullough Page 3 September 17, 1984

Facility Description

The proposed demolition landfill is located in the U.S. Survey 47, T47N, R5E, St. Louis County, Missouri. The proposed site consists of a total of approximately 200+ acres of which approximately 22 acres will be utilized for demolition landfill. This is a previously filled site. Approval to operate a demolition landfill on this site was given October 10, 1974, and Permit Number 218903 was issued January 1, 1976. Previous to that the site had been used as an unpermitted sanitary landfill. The types of wastes to be accepted will consist of demolition wastes, construction wastes, tires, inert plastics, soil, rock, and concrete. Approval to dispose of special wastes other than the wastes listed above (except hazardous wastes, explosives, or radioactive material) will be considered on a case-by-case basis, as provided in 10 CSR 80-3.010(3). The area method of demolition landfill operation will be utilized. The fill heights and area locations are to be completed as shown on the approved engineering plans and specifications. Upon completion of the landfill, the site will be used as an open storage yard.

All fencing, gates, all-weather access roads, signs, surface-water control devices, operating equipment, standby equipment and other necessary appurtenances shall be provided as per the final approved plans, specifications and operating procedures. The plans, specifications and operating procedures described above have been examined as to sanitary features of design which might affect the operation of the solid waste disposal area as a demolition landfill.

Modification and Termination of Permit

The Department reserves the right to revoke or modify this permit after due notice:

- If it is found that the holder of the permit is in violation of the Missouri Solid Waste Management Law, or the Missouri Solid Waste Management Rules and Regulations;
- For failure to operate in accordance with the approved plans, specifications and operating procedures;
- For creating a public nuisance, health hazard or causing environmental pollution;
- 4. For failure to comply with any and all conditions of the permit, as described herein;

- 5. If it is found that additional construction or alteration of the solid waste disposal area is necessary to comply with any and all rules and regulations promulgated in accordance with the Missouri Solid Waste Management Law;
- If it is determined a facility has not been operated for a period of one year.

This permit shall become void after notice to the Department by the person named in the permit that said person has discontinued operation of the disposal area.

Upon initiation of operation at your landfill, you will have indicated your acknowledgement and acceptance of this permit and conditions of the permit. If you have any questions, please contact the Waste Management Program at (314) 751-3241, or P.O. Eox 1368, Jefferson City, MO 65102.

Sincerely,

DEPARTMENT OF NATURAL RESOURCES

⊁Fred A. Laīser

Director

FAL:mpl

Enclosure

cc: East-West Cateway Regional Planning Commission St. Louis Regional Office Cavid E. Murray, P. E., Reitz & Jens, Inc. St. Louis County, Dept. of Health Vaste Management Program Missouri Department of Natural Resources
Part 70 Operating Permit
Permit No. OP2001009

C' rlie A. Dooley €...anty Executive



To CLEEN

TO SAL 8/30/04/
Jacquelynn A. Meeks, DrPH
Director of Health

August 23, 2004

Certified Mail Return Receipt

Ms. Jacinta Douma General Manager Bridgeton Landfill, LLC 13570 St. Charles Rock Road Bridgeton, MO 63044

RE: Return Receipt of the Part 70 Operating Permit Notification/Application

Dear Ms. Douma:

On Aug. 9, 2004, we received your Part 70 operating permit notification/application. I will be reviewing your application.

If you have any questions or need additional information, please contact me at (314) 615-8936, or you may write to St. Louis County – Health, Air Pollution Control Program at 111 S. Meramec Ave., Clayton, MO, 63105.

Thank you,

AIR POLLUTION CONTROL PROGRAM

Kathrina M. Donegan

Permit Engineer

c: Amish Daftari, Missouri Department of Natural Resources Source file

PART 70 PERMIT RENEWAL APPLICATION BRIDGETON LANDFILL, LLC BRIDGETON, MISSOURI

Installation ID Number 189-0312
Aquaterra Project Number 1291.10
August 2004

Prepared For: Bridgeton Landfill, L.L.C.

> AQUATERRA ENVIRONMENTAL SOLUTIONS, INC.



Landfill Authority

13570 St. Charles Rock Rd. Bridgeton, MO 63044 314/739-1919 • Fax 314/739-2588

August 6, 2004

Ms. Kathrina Donegan
St. Louis County Department of Health
Air Pollution Control
111 South Meramec Avenue
Clayton, MO 63105

Re: Air Operating Permit Renewal Application

Bridgeton Landfill, LLC, 189-0312

Air Operating Permit Number OP2001009

Dear Ms. Donegan:

Enclosed are two copies of the Bridgeton Landfill, LLC (Bridgeton Landfill) Application for Authority to Operate and a \$100 application fee for the referenced permit application completed by Aquaterra Environmental Solutions, Inc. (Aquaterra). During the development of the attached application, Aquaterra reviewed site operating activities, applicable Missouri and St. Louis County regulations, the 2003 Emission Inventory Questionnaire, and the 2001 Permit to Operate. The current operating permit expires February 7, 2005.

Bridgeton Landfill is subject to 40 CFR 60 Subpart WWW (New Source Performance Standards, NSPS) and 10 CSR 10-5.490. The facility has an approved Gas Collection and Control System Design Plan. The second of a three-phase process to upgrade the collection system was completed in July 2004. In May 2004, a 3,500 SCFM flare was constructed to better manage the landfill gas collected and the second 3,500 SCFM enclosed flare is scheduled to be installed within the next four months.

Ms. Kathrina Donegan August 6, 2004 Page 2 of 2

If you have any questions regarding this application package, please contact me at (314) 739-1919 or Michele Boussad at Aquaterra at (573) 635-2075.

Sincerely,

BRIDGETON LANDFILL, L.L.C.

Allen Steinkamp

Environmental Manager

C: Jacinta Douma - Bridgeton Landfill

Michele Boussad - Aquaterra

Attachments:

Filing Fee

Application for Authority to Operate

Potential to Emit Calculations

AWIN MANAGEMENT, INC.

FLEET MAINE, N.A. South Portland, ME

A. DRIGINAL DOCUMENT IS PRINTED ON CHEMICAL HEACTIVE PARIER WITH MICROPRINED BORDEN- OD NOT CASH IF THE WORD WORD IS VISIBLE. A.

CHECK NO. 785519

C/O Allied Waste North America, Inc.
Browning Ferris Inclustries, Inc.
N. Greenway-Hayden Loop, Suite 100

Schaidale, AZ 85260

PAY ***EXACTLY ********100 *** DOLLARS

MISSOURI DEPT OF NATURAL RESOU

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DATE 8/05/2004 TMUOMA 100.00

AWIN MANAGEMENT, INC. VOID IF OVER 180 DAYS OLD

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ORDER QΕ

JEFFERSON CITY MO 65102

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DETACH THIS PORTION FOR YOUR RECORDS



STATE OF MISSOURI DEPARTMENT OF NATURAL RESOURCES AIR POLLUTION CONTROL PROGRAM P.O. BOX 176, JEFFERSON CITY, MO 65102 APPLICATION FOR AUTHORITY TO OPERATE

OFFICE USE ONLY	· · · · · · · · · · · · · · · · · · ·
FILING FEE	
\$100	
CHECK NO.	CHECK RECEIVED
CHECK AMOUNT	CHECK DATE

PROJECT NUMBER NOTE: Please read all instructions to assist in completing all forms properly. FORM OP-A01 - Section A A01.00 - GENERAL APPLICATION INFORMATION All applications MUST be in duplicate and accompanied by a single \$100 filling fee. PLANT NO. YEAR SUBMITTED 1. INSTALLATION NAME Bridgeton Landfill, LLC 189 0312 2004 INSTALLATION STREET ADDRESS COUNTY NAME 13570 St. Charles Rock Road St. Louis CITY ZIP CODE INSTALLATION TELEPHONE NO. STATE MO 63044 (314) 739 - 1919 Bridgeton INSTALLATION MAILING ADDRESS INSTALLATION FAX NO. (314) 739-2588 13570 St. Charles Rock Road CITY MO SENATORIAL DISTRICT NO. STATE ZIP CODE MO 63044 Bridgeton INSTALLATION CONTACT PERSON MO REPRESENTATIVE DISTRICT NO. MR. 🗌 MS. 🔯 Jacinta Douma CONTACT PERSON TITLE CONTACT PERSON E-MAIL Jacinta.douma@awin.com General Manager 2. PARENT COMPANY NAME MAILING ADDRESS 13570 St. Charles Rock Road Allied Waste Industries ッデデ STATE ZIP CODE Bridgeton MO 63044 PARENT COMPANY CONTACT PERSON TELEPHONE NUMBER MR. MS. Allen Steinkamp (314) 739-1919 CONTACT PERSON E-MAIL PARENT COMPANY CONTACT PERSON TITLE Allen.Steinkamp@awin.com Environmental Manager 3. TYPE OF APPLICATION PART 70 (MAJOR) OFF-PERMIT CHANGE MINOR MODIFICATION INITIAL ADMINISTRATIVE AMENDMENT SIGNIFICANT MODIFICATION RENEWAL INTERMEDIATE STATE RENEWAL AMENDMENT INITIAL BASIC STATE [INITIAL RENEWAL I AMENDMENT "I certify, based on information and belief formed after reasonable inquiry, the statements and information in this document are true. accurate, and complete." SIGNATURE OF RESPONSIBLE OFFICIAL OF COMPANY DATE 13012004 TYPE OR PRINT NAME OF RESPONSIBLE OFFICIAL TELEPHONE NUMBER (314) 739-5099 Mr. Ms. Rusty Waldrup RESPONSIBLE OFFICIAL E-MAIL UFFICIAL TITLE OF RESPONSIBLE OFFICIAL Rusty.Waldrup@awin.com District Manager

			APPLICATION FOR AUTHORITY TO OPE	RATE - SEC	TION A		·			
			ATION FOR AUTHORITY TO OPERATE	FIRE			DI AND NO		VEAD AUDITORS	
	eton La		ill, LLC	FiPS 189			9LANT NO. 0312		YEAR SUBMITTED 2004	
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<u></u> _			PROCESSES					TWC	D-DIGIT SIC CODE	
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YES	⊠ N	10	If No, submit one (1) copy of a complet	ed EIQ with	this appli	icat	ion and compl	ete the tal	ble below.	
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	1.1	Pn	ocess Flow Diagram		2.3	VC	VOC Process Mass-Balance Worksheet			
	1.2	Su	mmary of Emission Points		2.4	Pe	troleum Loading	n Loading Worksheet		
1 	2.0	En	ission Point Information		2.5	Ог	ganic Liquid Sto	rage-Fixed	Roof Tank	
	2.0C	Co	introl Device Information		2.5L	Ge	eneral Liquid Sto	orage Tank	Information	
	2.0P	Po	dable Plant Information		2.6	0	rganic Liquid St	orage-Float	ting Roof Tank	
	2.08	St	ack Information		2.7	На	aul Road Fugitiv	e Emission	s Worksheet	
	2.02	Oz	rone Season Information		2.8	St	orage Pile Work	sheet		
	2.1	Fu	el Combustion Worksheet		2.9	St	ack Test/Contin	uous Emiss	ion Monitoring Worksheet	
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2	C01.0	00	Insignificant Activities Required To Be Listed	0	D03.20		Combustion T Engines	urbines and	f Internal Combustion	
2	D01.0	00	Existing Plant-Wide Conditions	0	D03.30	ı	Spray Booths			
1	002.0	ю	Proposed Plant-Wide Conditions	1	D04.00		Aitemate Ope	rating Scen	ario/Voluntary Conditions	
3_	003.0	00	General Emission Unit	3	D05.00	Compliance Determination			מס	
0	003.	10	Indirect Heating Sources	1	F01.00	F01.00 General Comments				



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	SR 10-6		Construction Permits Re	equired '		
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	SR 10-6			des of High Air Pollution	ess information	
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	SR 10-6		Circumvention 1			
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×			10 CSR 10-6.07	specific subpart Form OP	-BO3.00) ²	ons (NOTE: if yes, check
×_	<u> </u>		10 CSR 10-6.08	subpart Form OP-BO4.00)) ²	NOTE: if yes, check specific
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×			10 CSR 10-6.24	O Asbestos Abatement Pro Requirements 2	ects—Registration, Notifi	cation and Performance
	X		10 CSR 10-6.26		Sulfur Compounds	
	×		10 CSR 10-6.27	Applications to the EPA ²		, Submit Acid Rain Permit
	X		10 CSR 10-6.31		From Municipal Solid Wa	
	X	ļ <u>.</u>	10 CSR 10-6.33		From Batch-Type Charco	
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FORM OP-B02 - APPLICABLE REQUIREMENTS CHECKLIST - SECTION B B02.00 - Applicable Requirements Checklist INSTALLATION NAME PLANT NO. YEAR SUBMITTED Bridgeton Landfill, LLC 189 0312 2004 NEWSGURGE PERFORMANCE REGULATIONS 10 CSR 10 61070

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	e Requirements	UIREMENTS CHECKLIS	ST - SECTION D					
TALLATION NAME	e rioquitements	Stickinge	FIPS	PLANT NO.	YEAR SUBMITTED			
idgeton Landfill,	LLC		189	0312	2004			
					Hermital Control (S. Co., C. o., 2008-007)			
	NEW SUUKE	EREKHUKWANCE REG	ULAHUNS-JU	CSR TU-6 UZUECUNIUN PENTEYESPECIEC SUBPAR	UED) CHECKECKEONO ABLE) ANDARDS			
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CARACAPICAPICIFIC				CORGANIZATIONE DE LA TRANSPORTATION DE LA TRANSPORT				
X	FF	[Reserved]		Sacamore and with the second				
$-\frac{1}{x}$	GG	Stationary Gas Turbin						
 	НН	Lime Manufacturing P						
$\frac{1}{x}$	KK	Lead-Acid Battery Ma						
X	LL	Metallic Mineral Proce		 				
X	MM			ce Coating Operations	<u>-</u>			
X	NN	Phosphate Rock Plan						
X	PP	Ammonium Sulfate Ma						
X	QQ	Graphic Arts Industry;	Publication Rote	gravure Printing				
X	RR			rface Coating Operation	S			
X	SS	Industrial Surface Coa	ting Large Applia	ances				
X	11	Metal Coil Surface Co						
X	UU	Asphalt Processing ar		ng Manufacture				
X	W	Equipment Leaks of V	Manufacturing Industry					
X	ww		Beverage Can Surface Coating Industry					
X	XX	Bulk Gasoline Termin						
X	AAA	New Residential Woo	d Heaters					
X	BBB	Rubber Tire Manufact	-					
X -	ccc	[Reserved]						
X	DDD	Polymer Manufacturin	g Industry					
X	EEE	[Reserved]						
X	FFF	Flexible Vinyl and Ure	thane Coating a	nd Printing				
X	GGG	Equipment Leaks of V						
X	HHH	Synthetic Fiber Produ			· · · · · · · · · · · · · · · · · · ·			
X	in	VOC Emissions from	SOCMI Air Oxida	ation Unit Processes				
X	111	Petroleum Dry Cleans						
X	KKK			re Natural Gas Processi	ng			
X	LLL	Onshore Natural Gas						
_ X	MMM	[Reserved]						
X	NNN	VOC Emissions from	SOCMI Distillation	on Operations				
X	000	Nonmetallic Mineral F	rocessing Plants	5				
X	PPP	Wool Fiberglass Insui	ation Manufactus	ring Plants				
X	QQQ	VOC Emissions form	Petroleum Refin	ery Wastewater Systems	s			
X	RRR	Synthetic Organic Ch	emical Manufact	uring Reactor Processes	S			
X	SSS	Magnetic Tape Coation						
X	TIT	Industrial Surface Co	ating of Plastic P	arts for Business Machin	nes			
X	UUU	Calciners and Dryers	in Mineral Indus	tries				
X	W	Polymeric Coating of						
x T	www	Landfills						
			e Combustion II	nits (started after 8/30/9	9. Modifications or			
X	AAAA	Reconstruction after		inte farmitée autei ataqua	o, moundarions di			
				e Incineration Units for V	Which Construction is			
1 x 1	` cccc			9 or for which Modification				
1 '' 1	{	Commenced on or Af						



	LATION NAME	Requirements C	neckijst	FIPS	PLANT NO.	YEAR SUBMITTED
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	MERCICABILITA		TADLER/PARTESIN	TIGNAL EMISSION ST	ORGANIZATIONS STATES	MR POLCUTANT SFOR SOURCE
X X			General Provisions		CAPE CORIES :: :: :: :: :	
	 				Determinations for Major	Sources in Accordance w
<u> </u>		В	Clean Air Act Secti	ons, Sections 112((g) and 112(j)	
	x	F	Organic Hazardous Industry	s Air Pollutants from	π the Synthetic Organic C	hemical Manufacturing
	T x	G		Air Pollutants from	n the Synthetic Organic C	hemical Manufacturing
					essels, Transfer Operation	ns, and Wastewater
	X		Organic Hazardous			o the Negotiated Regulation
	X		for Equipment Leal		Cettain Process Subject t	o the Negotiated Regulation
	X	J	Polyvinyl Chloride		ction _	
	X	K	[Reserved]			
	X	L	Coke Oven Batteri			
	X	<u>M</u>	Perchloroethylene			
	} × }	N	Chromium Anodizi		Decorative Chromium Ele	caropiating and from
	X	- 0	Ethylene Oxide En		tion Facilities	
	Х	Q	Hazardous Air Poli	utants for Industria	al Process Cooling Towers	
_	X	R				ipeline Breakout Stations)
	X	s			ilp and Paper Industry	
	X	T	Halogenated Solve			
	X	U W	Group Polymers		yion Polyamides Producti	
	 	x			idary Lead Smelting	91)
_	 	- 	 		ine Vessel Loading and U	nloading Operations
	X	Z	[Reserved]			
	X	AA			horic Acid Manufacturing	
	X	BB	<u> </u>		hate Fertilizer Production	Plants
	1 × 1	CC	Hazardous Air Pol			
	X	DD	Off-Site Waste and			
	X	EE FF	Magnetic Tape Ma [Reserved]	inutacturing Opera	tions	
		 -		lutants for Source	Categories: Aerospace M	anufacturing and Rework
	X .	GG	Facilities	<u> </u>		<u> </u>
	X	HH			d Natural Gas Production	
	X	- 1			Iding & Ship Repair (Surfa	
	X	JJ KK	Printing and Publis		om Wood Furniture Manu	iactunng
	 	LL			Aluminum Reduction Pla	nts
	X				irces at Kraft, Soda, Sulfit	
		ММ	Semichemical Pul	p Mills	<u> </u>	
	X		Tanks-Level 1			· · · · · · · · · · · · · · · · · · ·
	X	PP	Containers Surface Impounds			
	X	QQ RR	Individual Drain S		 	
	7	· · · · · ·			es, Recovery Devices and	Routing to a Fuel Gas
	X	SS	System or a Proce	ess		<u></u>
	Х	TT	Equipment Leaks-		···	
	X	UU	Equipment Leaks-			
	X		Oil Water Separat			
	<u> </u>	ww	Storage Vessels (evel 2 Categories: Generic Max	mum Augilabla Castal
	(x	YY	Technology Stand		Categories. Generic Max	mem Avaliable COHBO

STAL	MAN NOITAL	E	ements C	ne annier	FIPS	PLANT NO.	YEAR SUBMITTED
ridg	eton Land	fill, LLC			189	0312	2004
	ZZ MA	XIMUM ACH	HEVABLE	CONTROLATECHN	GLOGYAREGUEAT	IONS-40 CSR 40-6.075	CONTINUED
201	IF CHECKE	DYESION FOR	MOPBOLO	TOR 10 CSR 10-6.075.	PLEASE (DENITIES ARE L'STANDARDS ARE FE	SPECIFIC SUBPART HE YOU C DERAULY ENFORCEABLE	ECKEDINO THIS FORM DOE
76.3	APPULEA BIE			Ancine success	TIONALEMISSION ST	ORGANICATION HAS SEEN NOARDS EDRINA ZARDOUS AIR NOARDS EDRINA ZARDOUS AIR NGAREGURIES (2) 2014	POELUTANTS FOR SOURCE
- 32						CATEGORIES (TABLES)	
	\ \ \ \ \ \ \ \	——— — —	DDD		utants for Mineral V	nd Hydrochloric Acid Rege	neration Plants
	 2 -		EEE			ous Waste Combustors	
	 x 		FFF	[Reserved]	diams nom nazardi	ous yvaste Compositors	
	X	- ` 	GGG	Pharmaceuticals P	roduction		
	Î		ннн			Gas Transmission and Sto	rage Facilities
	X		111			olyurethane Foam Produc	
	X		JJJ			oup IV Polymers and Resi	
	X		LLL			tland Cement Manufacturin	
_	X		МММ			Active Ingredient Production	
	X		NNN			erglass Manufacturing	
-	X		000	Manufacture of Am	nino/Phenolic Resin	s	
	X		PPP	Hazardous Air Poll	utant Emissions for	Polyether Polyois Product	ion
	X		QQQ	Primary Copper St	neiting		
	X		RRR	Secondary Alumin	um Production		
	X		SSS	[Reserved]			
	X		111		lutants for Primary I		
	X		UUU		ies:Catalytic Crackii	ng Units, Catalytic Reformi	ng Units, and Sulfur
	<u> </u>		w	Recovery Units	Lutanta: Bublish: Ou	ned Treatment Works	
	X			[Reserved]	iolanis. Publiciy Ow	neo Treatment vvoiks	
	 	 -	XXX		lutante for Entroallo	ys Production: Ferromanga	nese and Silicomannaco
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<u> </u>	X		CCCC	Manufacturing of N		JOSEG THOMESON MING SIZE	NO E
	 		DDDD			cts (Yet to be proposed)	· - · · · · · · · · · · · · · · · · · ·
	 		EEEE			ine) (Proposed 4/2/02)	 -
	 	 -	FFFF			ufacturing (Proposed 4/4/	02)
	T x T		GGGG		for Vegetable Oil P		
	 		нннн		glass Mat Production		·
	 		1111			ting/Manufacturing (Yet to	be proposed)
	 		1111		Veb Coating (Propo		
	1 2 1	-	KKKK		f Metal Cans (Yet to		
	1 2 1		MMMM			tal Parts and Products (Pro	posed 8/13/02)
	X		NNNN		f Large Appliances		·
	1 x 1	· · ·	0000			s and Other Textiles (Pro	posed 7/11/02)
	X		PPPP		f Plastic Parts (Yet		·· ···································
	X		QQQQ			ducts (Proposed 6/21/02)	
	X		RRRR		f Metal Furniture (P		
	X		SSSS	Surface Coating o	f Metal Coil		
	X		TITE	Leather Finishing			
	X		UUUU	Cellulose Producti	on Manufacturing		
	X		WW	Boat Manufacturin			
	X		www			ction (Proposed 8/02/01)	
	X		XXXX	Rubber Tire Manu			
	X		YYYY		nes (Yet to be Pro		
	X		777Z	Reciprocating Inte	rnal Combustion En	ngines (RICE) (Yet to be P	roposed)
	X		AAAAA		ng (Yet to be Propo		
	X		88888	Semiconductor Ma	anufacturing (Propo	osed 5/08/02)	
	X		CCCCC	Coke Ovens: Pus	hing, Quenching an	d Battery Stacks (Propos	ed 7/03/01)
	X		DDDDD			nal Boilers and Process He	
	1 × 1		EEEEE	Iron Foundries (Y	et to be Proposed)		
	X		FFFF			ng (Proposed 7/10/01)	

FORM OP-B03 APPLICAB	LE REQU	REMENTS CHECKLIS	T - SECTION B		
B03.00 - Applicable Require	ements C	hecklist			
INSTALLATION NAME			FIPS	PLANT NO.	YEAR SUBMITTED
Bridgeton Landfill, LLC			189	0312	2004
	11 - 12/8 (5.13) -		SAMBEONEA MONICH	(Propositional Proposition Breakly	
ANAXMUM AGH	MOP BUT O	CEOR TO CAR TO ENV.	ASE OF THE SPECIE	SUBPANT FYOUGHECK	EDINO DISFORMIDOES
AND THE SER			OPGAN	IZATION	LINTANTS FOR SOURCE
AYES NOT THEASON	SUBPARTE			ORIES	
X	GGGGG	Site Remediation (Pro	posed 7/30/02)		_
X	HHHHH	Miscellaneous Coating	Manufacturing (MON)	(Proposed 4/04/02)	
X	11111	Mercury Emissions fro	m Mercury Cell Chlor-A	Ikali Plants (Proposed	7/03/02)
X	าววาว	Brick and Structural Cl	lay Products Manufactu	ring (Proposed 7/22/02)
X	KKKKK	Clay Ceramics Manufa	acturing (Proposed 7/2)	2/02)	-
X	LLLLL	Asphalt Roofing and P	rocessing (Proposed	11/21/01)	•
X	MMMMM	Flexible Polyurethane	Foam Fabrication Oper	ations (Proposed 08/8/	01)
X	NNNNN	Hydrochloric Acid Proc	duction (Proposed 9/18	/ /01)	
X	PPPPP	Engine Test Cells/Star	nds (Proposed 5/14/02	<u> </u>	
X	QQQQQ	Friction Parts Manufac	turing (Proposed 10/0	4/01)	
X	RRRRR	Taconite Iron Ore Prod	cessing (Yet to be Prop	osed)	
X	SSSSS	Refractory Products M	lanufacturing (Propose	d 7/20/02)	



	0 — Applicable R LATION NAME	Requirements Cho	ecklist	FIPS	L'PLANT NO.	Vican eligamen
	eton Landfill, Lt	_C		189	0312	YEAR SUBMITTED
_	ŕ		<u> </u>			
		EMISSIONSTAN	IDARDS-FOR HAZARI	DOUS AIR PO	LUDTANTS - 10CSR-10- lentify the specific subpart. If	6.080
	A NUN	E de Checked yes on i	loesmot need to be submitt	10 £080; piesse ir ed: All standards:	ienny (ne specific subparte il are federally an(orceaule)	CRECHECINO
VES	PRECABILITY EN			Net Charles	A OF CANIZATION IN THE	6, DBU checkedino RDOUS AIRERON, DEANTS NO
X		A	General Provisions			Only of the state
	X	B	Radon Emissions fro	m Underground	d Uranium Mines	
	1- x 1	Ċ	Beryllium			
	- x -	D	Beryllium Rocket Mo	tor Firing		
	X	E	Mercury	<u></u>		
	X	F	Vinyl Chloride			
	X	G	[Reserved]		 	· · · · · · · · · · · · · · · · · · ·
	X	Н	Emissions of Radion	uclides Öther T	han Radon From Depart	ment of Energy Facilities
	Х	ı	Radionuclides Emiss Commission License			
	 x	J			n Sources) of Benzene	
	X	К			ntal Phosphorous Plants	
	X				Products Recovery Plant	s
X		М	Asbestos			
	X	N	Inorganic Arsenic En	nissions from G	lass Manufacturing Plan	ts
	X	0			rimary Copper Smelters	
	Х	Р			rsenic Trioxide and Meta	Ific Arsenic Production
	X	Q	Radon Emissions fro	m Department	of Energy Facilities	
	X	Ŕ	Radon Emissions fro			
	X	S			nium Mines (proposed 3	1/07/89)
	X	T	Radon Emissions fro	m the Disposa	l of Uranium Mill Tailings	
	X	U	[Reserved]			
	X	V	Equipment Leaks (Fo			
}	X	W	Radon Emissions fro	m Operating M	lill Tailings	
	X	X	[Reserved]			
	Х	Y	Benzene Emissions	from Benzene	Storage Vessels	
	Χ	Z	[Reserved]			
	X	AA	[Reserved]			
	Х	88	Benzene Emissions	from Benzene	Transfer Operations	
	X	FF	Benzene Waste Ope	erations		



	ATION N eton La	ndfill, LLC	2	189	PLANT NO. 0312	YEAR SUBMITTED 2004
				THEOUIS METROPOUTAN	AREA	
		فان	IESPIEASEBNICKUDE FORM	OF BYO DULF TOPCASE DAVIDEIN TOT ARREST REFRERS ON STREET STA	POP STEE OUIS AREA: AND CO	PATIES - THE
SI	TIE VA	MINISTR	ATIVERERME REQUIR			
	PRECA				DEGANIZATION C	
	967	FLASON				
إ	X	J	10 CSR 10-5.130	Certain Coals to be washed		
X			10 CSR 10-5.250	Time Schedule for Complia		<u> </u>
	X	<u>J</u>	10 CSR 10-5.375	Motor Vehicle Emission Ins		
	X		10 CSR 10-5.380	Motor Vehicle Emissions In		ins of Transportation Plan
}	х	J	10 CSR 10-5.480	Programs, and Projects De or the Federal Transit Laws	eveloped, Funded, or App	roved Under Title 23 U.S.
€0	REAL	RMITREO	UREMENTS EVILLE			
10 C (SR 10-5	070	pen Burning Restrictions	AND THE PROPERTY OF CAME	2010N	
	SR 10-5		ontrol of Odors in the Arr			
2.78 Jan. 10		COLUMN TO THE REAL PROPERTY.	IREMENIS ELS L			
100.7	PPECA	TETE COMPANY			ZOSCIANICA SON S	
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	X		10 CSR 10-5.030	Used for Indirect Heating 1	HOR OF PARTICULATE MARKET F	ioni raei boming Equipme
	X		10 CSR 10-5.040	Use of Fuel in Hand-Fired	Equipment Prohibited 1	
	X	<u>-</u>	10 CSR 10-5.080	Incinerators Information on Sales of Fu	ole (Cool and Coeldust Fu	ol Oil) to be Descided and
	X		10 CSR 10-5.120	Maintained 1	· · · · · · · · · · · · · · · · · · ·	- · · · · · · · · · · · · · · · · · · ·
	 		10 CSR 10-5.170 10 CSR 10-5.180	Control of Odors From Pro Emission of Visible Air Cor		
	X		10 CSR 10-5.180	Control of Petroleum Liquid		
			10 CSR 10-5.240	Additional Air Quality Cont Clustered in a Small Land	rol Measures May be Requ Area ¹	uired When Sources Are
	Х		10 CSR 10-5.290	More Restrictive Emission Area 1	Limitations for Particulate	Matter in the South St. Lou
	X		10 CSR 10-5.295	Control of Emissions From		and Rework Facilities
	X	 -	10 CSR 10-5.300	Control of Emissions From		
	X	-	10 CSR 10-5.310 10 CSR 10-5.320	Liquefied Cutback Asphalt Control of Emissions From	Parchloroethylene Dry Cli	eaning Installations 3
	Î		10 CSR 10-5.330	Control of Emissions From	Industrial Surface Coating	Operations 1
·	X		10 CSR 10-5.340	Control of Emissions From		
	X		10 CSR 10-5.350			ed Pharmaceutical Product
_	X		10 CSR 10-5.360	Control of Emissions From		
	X	 _	10 CSR 10-5.370	Control of Emissions From		
	х		10 CSR 10-5.390	and Other Allied Surface C		amishes, Lacquers, Ename
	X		10 CSR 10-5.410	Control of Emissions From	Manufacture of Polystyre	
	Х		10 CSR 10-5.420	Manufacturing Plants 1		anic Chemical and Polym
	Х		10 CSR 10-5.430	Plastic Parts 2		of Chrome-Plated and Res
	X		10 CSR 10-5.440	Control of Emissions From		· · · · · · · · · · · · · · · · · · ·
	X		10 CSR 10-5.442	Control of Emissions From		erations 1
	X	ļ	10 CSR 10-5.450	Control of VOC Emissions		
	X	<u> </u>	10 CSR 10-5.451	Control of Emissions From		
	X		10 CSR 10-5.455		Solvent Cleanup Operation	ons 1
X			10 CSR 10-5.490 cal Agency Enforceable (Municipal Solid Waste Lar	ndfills 1	

FORM OP-B10 - AP	PLICABLE REQUIREMENT	S CHECKLIST - SECTION B		
	Requirements Checklist			
INSTALLATION NAME		FIPS	PLANT NO.	YEAR SUBMITTED
Bridgeton Landfill,	LLC	189	0312	2004
Special Control Printers and All Superior				
	57 57 EOU	IS METROPOLITAN AREA (C	ONTINUEDH	
	STOR	P. BJODO, F. LOCATED JVITHIN SCHOOL MUES JEERERSON, SEL VOORS AND	FRANKUM 1	
A APPECABLE RE	QUIREMENTS TO THE			
AND			ORGANIZATION .	The state of the s
X	10 CSR 10-5.500	Control of Emissions From Vi	olatile Organic Liquid Sto	orage ¹
_ X	10 CSR 10-5.510	Control of Emissions of Nitro	gen Oxides ¹	
_ X	10 CSR 10-5.520	Control of Volatile Organic Co	ompound Emissions Fro	m Existing Major Sources 1
X	10 CSR 10-5.530	Control of Volatile Organ Manufacturing Operations 1	ic Compound Emissio	ins Fram Wood Furniture
X	10 CSR 10-5.540	Control of Emissions From B		
х	10 CSR 10-5.550	Control of Volatile Organic (Distillation Operations Pri Manufacturing Process 1	Compound Emissions Focesses in the Syl	rom Reactor Processes and nthetic Organic Chemical
	Local Agency Enforceable Rency Enforceable Regulation			

İŞTALL	ATION NAME	Requirements Chec	, and a	FIP\$	PLANT NO.	YEAR SUBMITTED
3ridge	ton Landfill,	LLC		189	0312	2004
		ESPECUSION	N'DEPARTMENTS	ENEX DITEXT	R Land & Water Br Ar Rok Lotton Confe Inances	ANCH
		ISSENDED TO CONTRACTOR	TROUSECTION CH	APTER 612	ARTPOLEDITION CONFE INTANCES WITHIN SELOUIS COUNTY) CONGENIZATIONIE	(CIECODE)
編集	40年末月1日 11日 11日	DOTE TOLEAS	ENCLUCEFORM OF BI	OF ESCAPE	WITHWIST POUIS COUNTY	
	PROCABIENTY				ORGANIZATION POR	
T/E S/FEE	ANGEREAS X	612.010	Short Title 4			
	- X	612.020	Scope 4			
···	X	612.030	Definitions 4			
X		612.040		ards and Air Po	ollution Control Regulation	ns ⁴
	X	612.050	Enforcement, By			
	Х	612.060	Director of Air Po		4	
	_X	612.070	Appeal Board Es			
	Х	612.080	Duties of Appeal		· <u>. </u>	
	X	612.090	Board of Conside			
X		612.100	Emergency Abat		ion-Procedure	
X		612.110	Permits Required			
Х		612.120	Permits to be Vis		Placed	
 -∳	X	612.130 612.140	Transfer 4	rent		
. 	- ^	612.150	Permit to Operat	e Mhon Poqui	roel 4	
$-\uparrow$	X	612,160			cations for Authority to C	onstruct and Operating
_ 	X	612,170	Information Requ	uired for Applic	ation for Permits 4	
	X	612.180	Standards for Gr	anting Permits	7	·· ····
	X	612,190	Cancellation of A			
X		612,200	Testing Prior to			
	Х	612.210	Action on Applica			
X		612.220	Suspension or R	evocation of Pe	ermits 4	
	х	612.230	Hearing, Stay of	Action 4	perating Permits or Author	ority to Construct, Board
	X	612.240	Surrender of Per		. <u>-</u>	
	X	612.250	Fees, When Pay		ns ⁴	
X		612.260	Permit Fees; Sci			
	X	612.270	Permit Fees; Re			
X	-	612.280	Testing by order		4	
×	X	612.290	Right of Entry; Ir Variances 4	ispections; San	npies	
	Ŷ	612.300 612.305	Variances Grant	ad by Director	4	
х	-^	612.310			or Scheduled Maintenand	
^	X	612.320	Service of Notice		or generalien mannenand	<u> </u>
	Î X	612.330			xperts; Presumptive Evic	ience of Facts 4
	x	612.335	Permitted Hours			onec or racia
X		612.340	Air Pollution Nui			
	X	612.350	Disclosure of Se			
	X	612.360			Prohibited. Penalty for 4	
<u>_</u>	x	612.370			nents; Unlawful Reprodu	ction or Alteration of
X		612.380		or Obstructina (Division Personnel 4	
	X	612.390	Penalties for Vic			
	X	612.400	Construction 4	· ·		· · · · · · · · · · · · · · · · · · ·
	X	612.410	Incinerators 4	·		
	V	612 420	Incinerator Stee			

Incinerator Stack; Emergency Vent Stack Use 4

Use of Recycled Goods in Lieu of Recycling 4

Recycling Requirements for Incineration of Waste 4

Preparation and Submission of Plan for Recycling 4

Only Local Agency Enforced Regulation

X

X

612,420

612.430

612,440

612.450

	ATION NAME	quirements Chec	KIISt _	LEIDO	PLANT NO.	YEAR SUBMITTED
	and Randfill, LLC			FIPS 189	0312	2004
J. 1494	non carro im, cec			1.00	55.2	2004
		LECUIS COUNT	YEPARTMENT	OF HEALTH AL	RELIANIDE & WATER BRY	WCH
	ARP ARP	OFFUTIONICON	ROUSEUMONIC	APTERI612-2	HRIPOULUTION CONTR	OL/CODE
			DISCOUNTYALO	PAROFDINANG	EST(CONTINUED)	
. A	PETCABLETTY				A SECTION AND A SECTION	
	SHOE REASON				TORGANIZATION "	
<u> </u>	<u> X </u>	612.460	Use of Reusab	le Materials in Lie	eu of Recycling	
	X	612.470	Approval of Pla	n for Recycling 4		
i	X	612.480	Modification of	Existing Plan 4		
i	X	612.490	Appeal from De	cision of Directo	r Disapproving Plan 4	· · · · · · · · · · · · · · · · · · ·
	X	612.500	Compliance wit			
	X	612.510	"Recyclable" D			
-	X	612.520			Prior to Incineration 4	
X		612.530	Saint Louis Co	unty Department		ement Rules and Regulation ts ⁴



ISTALLATION NAME		FIPS		PLANT NO.		YEAR SUBM	aredo in ia TED
Bridgeton Land fill, LLC	-	189	}	0312	i	2004	1120
Neignificate activity (2.50)			OTENTIALES	IMATED EMIS	SIONS JON	278)	1 2 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
MISSION UNIT ID	PM.	1 50/2 2 50/2	No.	PVOCE.	CO	TEAD	HAPS
ESCRIPTION Haul Road, Packers	1.02						
MIŠSION UNIT ID	PM	Seri	l No.	We s	(0.0)	LEAD	HAPS
escription Haul Road, Trailers	0.16						
MISSION UNIT ID	E PM4		E STORY	Vec	(1)	EAD	HAP
DESCRIPTION Diesel Fuel Tank, Breathing Loss				<1.0			
IMISSION UNIT ID S		S05		VOC	0.0	LEAD	HAP 2
DESCRIPTION Diesel Fuel Tank, Working Loss				<1.0			



C01.00 - INSIGNIFICANT ACTIVITIES FOR PARTICULAR TO THE STANDARD NAME INSTALLATION NAME	FIPS		T PLANT NO.		YEAR SUBMI	TEN
Sridgeton Landfill, LLC	189		0312		2004	
INSIGNIFICANT ACTIVITY SELECTION UNIT ID	Market of the beautiful the second and the second a	TO USE THE TAXABLE IN	STMATEDEMS	90 In the Table		eric Property - 50
7	L PM . SOX	s kov			EEAD-	
DESCRIPTION	100000000000000000000000000000000000000				1 · · · · · · · · · · · · · · · · · · ·	
Diesel Fuel Tank, Breathing Loss			<1.0			
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EMISSION UNIT ID 7	Cewing Is Slov		. Woles		L CAC	HAPS
DESCRIPTION						
Diesel Fuel Tank, Working Loss			<1.0			}
			Ì			
EMISSION UNIT ID 9	PMT PSO	, inc.	a avoca	00=	LEAD	HAPS
DESCRIPTION						
Borrow Area Stockpile	32.17					
EMISSION UNIT ID	PM					
=)				200	LECAU	HAPS
DESCRIPTION Haul Road, Borrow Area	1.83					
EMISSION UNIT ID						
	E-PMD II So	No.	TE VOC	SPCO C	LEAD	HAPS
DESCRIPTION						
EMISSION UNIT ID	PIMILE SO	A NO	. VOC	L.co	LEAD	HAPS
DESCRIPTION						
·		ļ				
			}			
	DUPLICATE THIS FORM	AS NEEDE	<u> </u>	1	 _	l



	EXISTING PLANT-WIDE CONDITIONS	S - SECTION D		
	NO EQUINO DE MANORE DE MAN	FIPS 189	PLANT NO. 0312	YEAR SUBMITTED 2004
PLEASE (IS HE S PROCESSIO)	NCHESPACE PROVIDE DUBE 19W AND PERMIT IS LIMITED AND ALL COLUMN IS PEREZ WOMEN OF	CONDITIONS WHICH ARE OF ALL OF		MARIEANT WIDE BASIS (LE SHOURS OF ORERATION)
OP2001009 PW001	10 CSR 10-6.170 Restriction of F Origin Emission Limitation: No person may cause or allow to construction, repair, cleaning or de or use of a road, driveway or open without applying reasonable meas allows or may allow, fugitive partic quantities that the particulate matter of the emission of the particulate continue or origin of the particulate technique proven to be equally according to the facility is currently performing	Particulate Matter to eccur any handling, to emolition of a building area; or operation oures as may be requilate matter to go be er: ir beyond the propert of the property line of ate matter shall be decurate and approved monthly monitoring of	ransporting or storing or its appurtenances if a commercial or industried to prevent, or in a syond the premises of y line of origin; or i origin. etermined by microscopy the Director. of PM emissions at the	of any material; ; construction ustrial installation a manner which origin in
OP2001009 PW002	10 CSR 10-6.250 Asbestos Abate Exemption Requirements Emission Limitation: All asbestos abatement projects se Emission Standard for Asbestos se and accreditation by 10 CSR 10-6	ement Projects- Ce ubject to provisions f hall be conducted wi	rtification, Accredita for 40 CFR Part 61, St	tion, and Business ubpart M, National
OP2001009 PW003	10 CSR 10-6.080 Emission Stand 40 CFR Part 61 Subpart M Nation Emission Limitation: The permittee shall follow the productivities occurring at this instruction. Part 61, Subpart M, National Emis	nal Emission Stand cedures and requirer allation which would	iard for Asbestos ments of 40 CFR Part be subject to provision	
OP2001009 PW004	10 CSR 10-5.040 Use of Hand Emission Limitation: The permittee shall not operate ar			
OP2001009 PW005	10 CSR 10-5.180 Emission of the Emission Limitation: No Person shall cause or permit the engine for more than ten (10) constants.	Visible Air Contam he emission of visible	inants From Internate air contaminants from	_
OP2001009 PW006	from the entire area of the The passive collection system rate from the entire area of the operator of the gas of the operator of the gas of the pressure at each well head than 20 %, and oxygen le concentration is less than	em shall be designed e land fill that warrantem shall be designed of the land fill that wollection and control ed, a temperature less than 5%. Of 500 ppm above backs to a control system is system may be capto longer accepting so tem has been in ope	I to handle the maximints control ed to handle the maximinarrants control system shall operate is than 55 degrees Ce perator shall operate ekground at the surfac in as described in required oped or removed provi- colid waste and be peri- contraction a minimum of 1	the system with negative elsius, nitrogen level less so that the methane e of the landfill. sired collection and control ded these conditions are manently closed; the 5 years; and the

	- Test in accordance to 10 CSR 10-5.249(4)
	- Any reading of 500 ppm or more above background at any location shall be recorded as an
	exeedance.
OP2001009	40 CFR Part 60 Subpart CC Emission Guidelines and Compliance Times for Municipal Solid
√007	Waste Landfills Emission Limitation:
	The permittee shall provide the calculation of the landfill NMOC emission rate to determinate whether
· 	the landfill meets the operation standards, the compliance provisions, and the monitoring provisions
<u> </u>	as specified in 40 CSR Part 60 Subpart WWW.
	The Bridgeton Landfill is an existing facility that has been modified after May 30,1991 when it
	obtained a vertical expansion in 1996. Therefore it is subject to the provisions of 40 CFR Part 60
	Subpart WWW not 40 CFR Part 60 Subpart CC
	40 CFR Part 60 Subpart WWW New Source Performance Standards for Municipal Solid Waste Landfills
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PERMITNO	DESCRIBE METHOD AND GIVE REFERENCE
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FORM OP-D02 - PROPOSED PLANT-WIDE CONDITIONS - SECTION D								
DO2.00 - PROPOSED PL		Was and the same with the same state of the same and the same		alkan menterilah di pangan pangan pangan dan di kanan di kanan sa				
INCCODE A BRANDES BY	WHEN NOT A STUNGTING		PLANT NO.	YEAR SUBMITTED				
'ridgeton Landfill, LLC		189	0312	2004				
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TEREASE DET IN THE SPA	CEPROVIDED BELOWANY PROF	OSED PERMIT CONDITIONS	HAT THE INSTALL ATION INT	NDS TO ESTABLISH IN THIS				
		THE REPAIN GREENITE						
		PROPOSED CONDITION						
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FORM OP-D03 - EMISSIO D03.00 - GENERAL EMIS		N - SECT	TION D			
INSTALLATION NAME	SOLON OWN O		FIPS		PLANT NO.	YEAR SUBMITTED
Bridgeton Landfill, LLC			189		0312	2004
AISSION UNIT ID	1 1	REFEREN	CE NUMBER (ID)		SOURCE CLASSIFIC 50100402	ATION CODE (SCC)
ZEWISSIONEUN IIPOESO		建设				
installations name for the Municipal Solid Waste						
DESCRIPTION OF EMISSION UN		-:- ·· -	<u> </u>	·		
DESCRIPTION OF ENTISSION OF	VIII					
MANUFACTURER				<u> </u>	MODEL NO./SERIA	Ľ NÓ.
CONSTRUCTION DATE	4 / 04 / 4070	. 1	MÁXIMÚM HÖÜRLY DE	SIGN RA	TE	
	1/01/ 1979					
STACK NO.	TEMPERATURE		•F	FLOW	RATE	ft³/min
CONTROL DEVICE TYPE	VERNION SOMMEDIA					CAPTURE EFFICIENCY
Enclosed Flares		POLLO	ANT(S) CONTROLLED	CONT	ROLEFFICIENCY %	0%
ADDITIONAL CONTROL DEVICE	TYPE	POLLUT	NMOC ANT(S) CONTROLLED	CONT	98 ROL EFFICIENCY	75 CAPTURE EFFICIENCY
NOON OF THE CONTROL O		1 30231	(0) 00	}	%	
STAPE CABLERREOU	REMENTISSERVE					
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POLITICAL DE	CSP# CF	* PERMIT	NO ETCL (A STATE ONCE	IDING BNIES) C.
· · · · · · · · · · · · · · · · · · ·						in accordance with 40
! ➡ NMOC	10 CSR 10-6.070,	40 CFR (60 WWW	,		r in accordance with 40 are will be operated and
المعية				ma	intained in accor	dance with the
<u> </u>	 		_ 			cifications. See PW006 CCS will be conducted in
NMOC	10 CSR 10-6.075 40 CFR 63 Subpar	+ Δ Δ Δ Δ		ac	cordance with 40	CFR 60.756 and 40 CFR
	40 CFR 03 300pas				Subpart AAAA.	
	Ì				bestos containing cumented and pro-	operly disposed in
Asbestos	40 CFR 61.154			ac	cordance with 40	CFR 61.154. The
					ministrator will be cavating ACM.	e notified 45 days prior to
	 -		· - · · · · · · · · · · · · · · · · · ·	O	erate the GCCS	in accordance with 10
NMOC	10 CSR10-5.490					Monitor in accordance with). The flare will be
						ained in accordance with
		- · · - <u>- ·</u>		the	e manufacturer's	specifications
						
					 	
1	 					

DUPLICATE THIS FORM AS NEEDED

ENGISSION UNIT ID ENGISSION UNIT ENCIOSED FOR THIS EMISSION UNIT Enclosed Flare DESCRIPTION OF EMISSION UNIT MANUFACTURER JOHN ZINK CONSTRUCTION DATE 5704 MAXIMUM HOURLY DESIGN RATE 1400-1800 FIND RATE 1400-1800 FIND RATE 1400-1800 FIND RATE 1500 RATE	FORM OP-DO3 — EMISSIC		ION - SEC	TION D				
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INSTALLATIONS NAME FOR THIS EMISSION UNIT MANUFACTURE JOHN ZINK	EMISSION UNITID			NCE NUMBER (ID)			IFICA	TION CODE (SCC)
INSTALLATIONS NAME FOR THIS EMISSION UNIT MANUFACTURE JOHN ZINK	THE MISSION WINDOWS ESC	HPTION 2 STATE						
MANUFACTURER JOHN ZINK JITYAO' ZTOF ZINCKNO. TEMPERATURE 1400-1800 TEMPERATURE 1500-1800 TEMPERATURE 1400-1800 TEMPERATURE 1500-1800	INSTALLATION'S NAME FOR TH				**************************************	THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON OF THE PE	<u>-p-7:499</u>	The second section of the second section of the second section is a second section of the second section secti
MANUFACTURER John Zink John Zin	Enclosed Flare							
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CONTROL DATE / / 210,000 standard cubic feet per hour STACK NO. TEMPERATURE / / 210,000 standard cubic feet per hour STACK NO. TEMPERATURE / / 210,000 standard cubic feet per hour STACK NO. TEMPERATURE / / / / / / / / / / / / / / / / / /	MANUFACTURER		 -		· · -	MODEL NO./SE	RIAL	NO.
CONTROL DATE / / 210,000 standard cubic feet per hour STACK NO. TEMPERATURE / / 210,000 standard cubic feet per hour STACK NO. TEMPERATURE / / 210,000 standard cubic feet per hour STACK NO. TEMPERATURE / / / / / / / / / / / / / / / / / /	John Zink					11'x40' ZTC)F	
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FORM OP-DO3 - EMISSIC		N - SECTION D		
D03_00 - GENERAL EMIS				
INSTALLATION NAME Bridgeton Landfill, LLC		FIPS 189	PLANT NO. 0312	YEAR SUBMITTED 2004
MISSION UNIT ID	8 8	I REFERENCE NUMBER (ID)	SOURCE CLASSIFE 50100402	CATION CODE (SCC)
EMISSION HINLEGESE INSTALLATION'S NAME FOR TH	RICHON LINE			
Open Flare (temporar		2004)		
DESCRIPTION OF EMISSION UN	п			
MANUFACTURER	-		MODEL NO./SERI	IAL NO.
Perennial Energy	_ .	MAXIMUM HOURLY DE	SIGN DATE	
BORG TROCHOM DAT E	12/ 05/ 03		rd cubic feet per hou	ır
STACKNO	TEMPERATURE	•F	FLOW RATE 2500	ft³/min
A ASSOCIATED ERPO	Particks examples			
CONTROL DEVICE TYPE		POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	% CAPTURE EFFICIENCY %
Open Flare ADDITIONAL CONTROL DEVICE	TYPE	NMOC POLLUTANT(S) CONTROLLED	98 CONTROL EFFICIENCY	75 CAPTURE EFFICIENCY
				%
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Visible Emissions	40 CFR Part 60.18		Flares shall be des	signed for and operated issions except for periods tal of 5 minutes during any
			2 consecutive hou	
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FORM OP-D04 - ALTERNA	ATE OPERATING	SCENARIO/VOL	UNTARY CONDITION	S - SECTION D	
DO4_00 - ALTERNATE OP	ERATING SCENA	RIO/VOLUNTAR	Y CONDITIONS		
INSTALLATION NAME Bridgeton Landfill, LLC			FIPS 189	PLANT NO. 0312	YEAR SUBMITTED 2004
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FORM OP-005 - COMPLIANCE DETER	MINATION ME	THODS	- SE	CTION D		- <u></u>	
D05.00 - COMPLIANCE DETERMINATION						الريني الريانيان	
INSTALLATIONNAME Bridgeton Landfill, LLC	•		1 8 9		PLANT NO. 0312	YEAR SUBMITTED 2004	
EMISSION UNIT ID	EIO REFEI				SOURCE CLASSIFICATION CODE (SCC) 50100402		
APPROABLE PROBREMENT							
APPLICABLE REQUIREMENT 40 CFR 60 WWW, 10 CSR 10-5.490		ida (riabara)		POLLUTANT(S) NMOC (VOC	and HAPs)	Annual Annua	
EMISSION LIMITATION OF STANDARD					- · · · · · · · · · · · · · · · · · · ·		
NSPS, 10 CSR 10-5.490							
DATE To be conducted /	1	Metho					
SUMMARY OF RESULTS							
To be completed within 180 days of in	nitial startup.			,			
elanioniugrame application							
PARAMETER MONITORED		MONIT	ORING	METHOD			
See Approved GCCS Plan		See Approved GCCS Plan					
MONITORING SCHEDULE	··		-				
Monitoring the gas collection and con	itrol evetom o	ontinue	e in a	ccordance with	the approved GCCS	<u>.</u>	
===)	mor system c	os igitide	:5 H1 G	Occidence will	the approved CCC	<i>.</i> .	
 							
			_				
A Frecon Reeping				ING METHOD			
i I		1					
See GCCS Plan		See G	CCS	Plan			
RECORD KEEPING SCHEDULE	·	—			_ 		
Recordkeeping of the gas collection a	and control sy	vstem o	ontinu	res in accordar	nce with the approve	d GCCS.	
5 Reporting .							
REPORTING REQUIREMENT		REPOR	TING S	CHEDULE	A STATE OF THE PARTY OF THE PAR	And the second s	
Semi-Annual		Semi	-Annu	ally			
Reporting is being conducted in accordar submitted every 6 months. April 1 st for the through June 30 th .	nce with 40 CF he period July	R 60.75 y 1 thro	7. The	e NSPS report w ecember 31 st :	vill be combined with the and October 1 st for the	SSM report and e period January 1 st	
	DUPLIC	ATE TH	IS FO	RM AS NEEDEL	3		



FORM OP-005 - COMPLIANCE DETERMIN	ATION METHOD	S - SECTIO	N D					
D05.00 - COMPLIANCE DETERMINATION								
INSTALLATION NAME Bridgeton Landfill, LLC	-	FIPS 189		PLANT NO. 0312	YEAR SUBMITTED 2004			
EMISSION UNIT ID 1	EIQ REFERENCE I	NUMBER (ID)		SOURCE CLASSIF 50100402	ICATION CODE (SCC)			
APPEICABLE REQUIREMENT 40 CFR 61.154		1 .	LUTANT(S) Destos					
EMISSION LIMITATION OR STANDARD 40 CFR 61 Subpart M		· - ·			-			
DATE N/A / /	TEST	MÉTHOD						
SUMMARY OF RESULTS	<u>_</u>							
		·						
CEMONTORING								
PARAMETER MONITORED	MON	MONITORING METHOD						
See Approved GCCS plan	See	Approved	GCCS pla	n				
MONITORING SCHEDULE								
Waste is covered with at least 6 inches o required.	f compacted no	n-asbestos	containin	g material daily	, therefore no monitoring is			
P								
A REPORT KEEPING PARAMETER RECORDED	REC	ORD KEEPING	METHOD					
See Approved GCCS plan	See	Approved	GCCS pla	n	_			
RECORD KEEPING SCHEDULE All asbestos containing waste received, or record to the waste generator, and record. All records and reports must by kept for a Records of the location, depth and area maintained until closure of the site.	icile any discrej at least 2 years	oancy betw	een the sh	ipment record a	and the amount received.			
Upon closure, the requirements of 61.15 location and quantities must be submitte			A copy of	records of asbe	stos waste disposal			
5 Repairing								
REPORTING REQUIREMENT Unreconciled differences of asbestos commaterial received versus shipped	, -	orting schel port immedi		reconciled with	nin 15 days			
	DUPLICATE T	HIS FORM	AS NEEDE	D				

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FORM OP-005 - COMPLIANCE DETERMINATION		S - SECTION D		<u> </u>	
D05.00 - COMPLIANCE DETERMINATION INSTALLATION NAME		FIPS	PLANT NO.	YEAR SUBMITTED	
Bridgeton Landfill, LLC		189	0312	2004	
EMISSION UNIT ID	EIQ REFERENCE	NUMBER (ID)	SOURCE CLASSIFIC 50100402	SOURCE CLASSIFICATION CODE (SCC) 50100402	
TE WEST CONTRESSED THE WISHEST STORY					
APPLICABLE REQUIREMENT 40 CFR 63 Subpart AAAA		NMOC	NT(S) (VOC and HAPs)		
EMISSION LIMITATION OR STANDARD NESHAP (40 CFR 63 Subpart AAAA)	<u> </u>		<u> </u>		
全部丰间晚季和高温等的					
DATE 1/16/04 / /	TEST	METHOD			
SUMMARY OF RESULTS			·		
Bridgeton Landfill is a new facility and is NESHAP standard the installation was s			. ЮПП IN 40 CFK 60.75	o. Upon promulgation of	
PARAMETER MONITORED	MONI	MONITORING METHOD			
See SSM plan	See SSM plan				
MONITORING SCHEDULE	<u> </u>		· - · - · - ·		
Accordance with the NSPS and the SSI	M Plan.				
T. Racont-Keeping PARAMETER RECORDED		RECORD KEEPING METHOD			
See SSM plan	See	SSM plan			
SSM Plan was implemented on 1/16/04	l and SSM event	s are documen	ted in accordance with	the SSM Plan.	
is Reporting.					
REPORTING REQUIREMENT SSM events		orting schedule nî-annual, unles	s inconsistent with pla	n then within 7 days	
If an SSM event occurs consistent with combined with the NSPS report and submit October 1st for the period January 1st the	ted every 6 months	s. April 1 st for th	ubmitted every 6 moni e period July 1 through	ths. The SSM report will be n December 31 st and	
If an SSM event occurs is inconsistent letter sent with seven working days after yents inconsistent with the plan.					
	DIIDI (CATE Y	HIS FORM AS N	EFDED		
1	DUPLICATE	THO FURNISHON			

FORM OP-D06 - CORE PERMIT REQUIREMENTS - SECTION D D06.00 - CORE PERMIT REQUIREMENTS (NOTE: THIS IS A REQUIRED FORM FOR ALL PERMIT APPLICATIONS) INSTALLATION NAME Bridgeton Landfill, LLC 189 0312 2004

CSR 10-6.050, Start-up, Shutdown and Malfunction Conditions

- (a) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the director within two business days in writing the following information:
 - (1) Name and location of installation:
 - (2) Name and telephone number of person responsible for the installation;
 - (3) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
 - (4) Identity of the equipment causing the excess emissions;
 - (5) Time and duration of the period of excess emissions;
 - (6) Cause of the excess emissions;
 - (7) Air pollutants involved;
 - (8) Best estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;
 - (9) Measures taken to mitigate the extent and duration of the excess emissions; and
 - (10) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
- (b) The permittee shall submit the paragraph (a.) information list to the director in writing at least ten (10) days prior to any maintenance, start-up or shutdown, which is expected to cause an excessive release of emissions that exceed one (1) hour. If notice of the event cannot be given ten (10) days prior to the planned occurrence, it shall be given as soon as practicable prior to the release. If an unplanned excess release of emissions exceeding one (1) hour occurs during maintenance, start-up or shutdown, the director shall be notified verbally as soon as practical during normal working hours and no later than the close of business of the following working day. A written notice shall follow within ten (10) working days.
- (c) Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, startup or shutdown. The information, at a minimum, should be the paragraph (a.) list and shall be submitted not later than fifteen (15) days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under section 643.080 or 643.151, RSMo.
- Nothing in this rule shall be construed to limit the authority of the director or commission to take appropriate action, under sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding
- (e) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

10 CSR 10-6,060, Construction Permits Required

The permittee shall not commence construction, modification, or major modification of any installation subject to this rule, beginoperation after that construction, modification, or major modification, or begin operation of any installation which has been shut down ionger than five (5) years without first obtaining a permit from the permitting authority.

10 CSR 10-6.065, Operating Permits

The permittee shall file for renewal of this operating permit no sooner than eighteen months, nor later than six months, prior to the expiration date of this operating permit. The permittee shall retain the most current operating permit issued to this installation on-site and shall immediately make such permit available to any Missouri Department of Natural Resources personnel upon request.

10 CSR 10-6.080, Emission Standards for Hazardous Air Pollutants

- 40 CFR Part 61 Subpart M, National Emission Standard for Asbestos
- The permittee shall follow the procedures and requirements of 40 CFR Part 61, Subpart M for any activities occurring at this installation which would be subject to provisions for 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos.
- The permittee shall conduct monitoring to demonstrate compliance with registration, certification, notification, and Abatement Procedures and Practices standards as specified in 40 CFR Part 61, Subpart M.



FORM OP-D06 - CORE PERMIT REQUIREMENTS - SECTION D

DOG. 00 - CORE PERMIT REQUIREMENTS (CONTINUED) (THIS IS A REQUIRED FORM FOR ALL PERMIT APPLICATIONS) INSTALLATION NAME FIRST PLANT NO. YEAR SUBMITTED

Bridgeton Landfill, LLC 189 0312 2004

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CSR 10-5.100. Alternate Emission Limits

Proposals for alternate emission limitations shall be submitted on Alternate Emission Limits Permit forms provided by the department. An installation owner or operator must obtain an Alternate Emission Limits Permit in accordance with 10 CSR 10-6.100 before alternate emission limits may become effective.

10 CSR 10-6.110, Submission of Emission Data, Emission Fees and Process Information

- (a) The permittee shall complete and submit an Emission Inventory Questionnaire (EIQ) in accordance with the requirements outlined in this rule.
- (b) The permittee shall pay an annual emission fee per ton of regulated air pollutant emitted according to the schedule in the rule. This fee is an emission fee assessed under authority of RSMo. 643.079 to satisfy the requirements of the Federal Clean Air Act, Title V.
- (c) The fees shall be due April 1 each year for emissions produced during the previous calendar year. The fees shall be payable to the Department of Natural Resources and shall be accompanied by the Emissions Inventory Questionnaire (EIQ) form or equivalent approved by the director.

10 CSR 10-6.130, Controlling Emissions During Episodes of High Air Pollution Potential

This rule specifies the conditions that establish an air pollution alert (yellow/red), watch or emergency and the associated procedures and emissions reduction objectives for dealing with each. The permittee shall submit an appropriate emergency plan if required by the Director.

10 CSR 10-6,150, Circumvention

The permittee shall not cause or permit the installation or use of any device or any other means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission or air contaminant which violates a rule of the Missouri Air Conservation Commission.

10 CSR 10-5.170, Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin

- (a) The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair.

 cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive particulate matter emissions to go beyond the premises of origin in quantities that the particulate matter may be found on surfaces beyond the property line or origin. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the director;
- (b) The permittee shall not cause nor allow to occur any fugitive particulate matter emissions to remain visible in the ambient air beyond the property line of origin.
- (c) Should it be determined that noncompliance has occurred, the director may require reasonable control measures as may be necessary.

10 CSR 10-6.180, Measurement of Emissions of Air Contaminants

- (a) The director may require any person responsible for the source of emission of air contaminants to make or have made tests to determine the quantity or nature, or both, of emission of air contaminants from the source. The director may specify testing methods to be used in accordance with good professional practice. The director may observe the testing. All tests shall be performed by qualified personnel.
- (b) The director may conduct tests of emissions of air contaminants from any source. Upon request of the director, the person responsible for the source to be tested shall provide necessary ports in stacks or ducts and other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants.
- (c) The director shall be given a copy of the test results in writing and signed by the person responsible for the tests.

10 CSR 10-5.250, Asbestos Abatement Projects - Certification, Accreditation, and Business Exemption Requirements

The permittee shall conduct all asbestos abatement projects within the procedures established for certification and accreditation by 10 CSR 10-6.250. This rule requires individuals who work in asbestos abatement projects to be certified by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires training providers who offer training for asbestos abatement occupations to be accredited by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires persons who hold exemption status from certain requirements of this rule to allow the department to monitor training provided to employees. Each Individual who works in asbestos abatement projects must first obtain certification for the appropriate occupation from the department. Each person who offers training for asbestos abatement occupations must first obtain accreditation from the department. Certain business entities that meet the requirements for state-approved exemption status must allow the department to ignitor training classes provided to employees who perform asbestos abatement.

FORM OP-D06 - CORE PERMIT REQUIREMENTS - SECTION D D06.DD - CORE PERMIT REQUIREMENTS (CONTINUED) (THIS IS A REQUIRED FORM FOR ALL PERMIT APPLICATIONS) INSTALLATION NAME Bridgeton Landfill, LLC 189 0312 2004

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- No Regulation (Please check the appropriate response regarding applicability)
- x 10 CSR 10-2.070 (Kansas City Metropolitan Area)
- O x 10 CSR 10-3.090 (Outstate Area)
- x 10 CSR 10-4.070 (Greene County)

Restriction of Emission of Odors

No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one (1) volume of odorous air is diluted with seven (7) volumes of odor-free air for two (2) separate trials not less than fifteen (15) minutes apart within the period of one (1) hour.

This requirement is not federally enforceable.

10 CSR 10-5.160, (Not Applicable if not in St. Louis Metropolitan Area) Restriction of Emission of Odors

No person shall emit odorous matter as to cause an objectionable odor on or adjacent to:

- (a) Residential, recreational, institutional, retail sales, hotel or educational premises.
- (b) Industrial premises when air containing odorous matter is diluted with twenty (20) or more volumes of odor-free air; or
- (c) Premises other than those in paragraphs (1)A.1. and (2) of the rule when air containing odorous matter is diluted with four (4) or more volumes of odor-free air.

The previously mentioned requirement shall apply only to objectionable odors. An odor will be deemed objectionable when thirty percent (30%) or more of a sample of the people exposed to it believe it to be objectionable in usual places of occupancy; the sample size to be at least twenty (20) people or seventy-five percent (75%) of those exposed if fewer than twenty (20) people are exposed.

This requirement is not federally enforceable.

10 CSR 10-5.280, Compliance Monitoring Usage

- (a) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
 - (1) Monitoring methods outlined in 40 CFR Part 64;
 - (2) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - (3) Any other monitoring methods approved by the director.
 - Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred by a permittee:
 - (1) Monitoring methods outlined in 40 CFR Part 64;
 - (2) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - (3) Compliance test methods specified in the rule cited as the authority for the emission limitations.
- (c) The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
 - (1) Applicable monitoring or testing methods, cited in:
 - 10 CSR 10-6.030, "Sampling Methods for Air Pollution Sources";
 - 10 CSR 10-6.040, "Reference Methods";
 - 10 CSR 10-6.070, "New Source Performance Standards";
 - 10 CSR 10-6.080, "Emission Standards for Hazardous Air Pollutants"; or
 - (2) Other testing, monitoring, or information gathering methods, if approved by the director, that produce information comparable to that produced by any method listed above.



FORM OP-D06 - CORE PERMIT REQUIREMENTS - SECTIO	DN D		 .
D06.00 - CORE PIERMIT REQUIREMENTS (CONTINUED) (T.	HIS IS A REQUIRED FO	ORM FOR ALL PERMIT	APPLICATIONS)
INSTALLATION NAME Bridgeton Landfill, LLC	189	PLANT NO. 0312	YEAR SUBMITTED 2004
	<u> </u>		

List Shall be unlawful to operate any hand-fired fuel-burning equipment in the St. Louis, Missouri metropolitan area. This regulation shall apply to all fuel-burning equipment including, but not limited to, furnaces, heating and cooking stoves and hot water furnaces. It shall not apply to wood-burning fireplaces and wood-burning stoves in dwellings, nor to fires used for recreational purpose, nor to fires used solely for the preparation of food by barbecuing. Hand-fired fuel-burning equipment is any stove, furnace, or other fuel-burning device in which fuel is manually introduced directly into the combustion chamber.

SECULATE SOLUTIONS (CEA) AND CODE OF STATERE GUADIONS SENTIONS HE SUCCESSION HEART TO BUE RESULTEMENTS AND COMMENTS OF THE SUCCESSION OF T

Yes	No	Regulation .	(Please	check the	appropriate	response	regarding	applicability)

- X 10 CSR 10-2.100 (Kansas City Metropolitan Area)
- x 10 CSR 10-4.090 (Greene County)
- x 🗇 10 CSR 10-5.070 (St. Louis Metropolitan Area)

Open Burning Restrictions

- (a) The permittee shall not conduct, cause, permit or allow a salvage operation, the disposal of trade wastes or burning of refuse by open burning.
- (b) Exception Open burning of trade waste or vegetation may be permitted only when it can be shown that open burning is the only feasible method of disposal or an emergency exists which requires open burning.
- (c) Any person intending to engage in open burning shall file a request to do so with the director. The request shall include the following:
 - (1) The name, address and telephone number of the person submitting the application; The type of business or activity involved; A description of the proposed equipment and operating practices, the type, quantity and composition of trade wastes and expected composition and amount of air contaminants to be released to the atmosphere where known;
 - (2) The schedule of burning operations;
 - (3) The exact location where open burning will be used to dispose of the trade wastes;
 - (4) Reasons why no method other than open burning is feasible; and
 - (5) Evidence that the proposed open burning has been approved by the fire control authority which has jurisdiction.
- (d) Upon approval of the open burning permit application by the director, the person may proceed with the operation under the terms of the open burning permit. Be aware that such approval shall not exempt the installation from the provisions of any other law, ordinance or regulation.
 - The permittee shall maintain files with letters from the director approving the open burning operation and previous DNR inspection reports.

St. Louis City Ordinance 64749, Sec 17, (Not Applicable if not in City Limits of St. Louis City) Open Burning Restrictions

- (a) No person shall cause, suffer, allow or permit the open burning of refuse.
- (b) No person shall conduct, cause or permit the conduct of a salvage operation by open burning.
- (c) No person shall conduct, cause or permit the disposal of trade waste by open burning.
- (d) No person shall cause or permit the open burning of leaves, trees or the byproducts therefrom, grass, or other vegetation.
- (e) It shall be prima-facie evidence that the person who owns or controls property on which open burning occurs, has caused or permitted said open burning.

10 CSR 10-5.240, (Not Applicable if not in St. Louis Metropolitan Area) Additional Air Quality Control Measures May be Required When Sources Are Clustered in a Small Land Area

The Air Conservation Commission may prescribe more restrictive air quality control requirements that are more restrictive and more extensive than provided in regulations of general application for:

- (a) Areas in which there are one (1) or more existing sources and/or proposed new sources of particulate matter in any circular area with a diameter of two (2) miles (including sources outside metropolitan area) from which the sum of particulate emissions allowed from theses sources by regulations of general application are or would be greater than two thousand (2000) tons per year or five hundred (500) pounds per hour.
- (b) Areas in which there are one (1) or more existing sources and/or proposed new sources of sulfur dioxide in any circular area with a diameter of two (2) miles from which the sum of sulfur dioxide emissions from these sources allowed by regulations of general application are or would be greater than one thousand (1000) tons for any consecutive three (3) months or one thousand (1000) pounds per hour."



FORM OP-D06 - CORE PERMIT REQUIREMENTS - SECTION D

D06.00 - CORE PERMIT REQUIREMENTS (CONTINUED) (THIS IS A REQUIRED FORM FOR ALL PERMIT APPLICATIONS)

INSTALLATION NAME
Bridgeton Landfill, LLC

189

PLANT NO. YEAR SUBMITTED

2004

tle VI - 40 CFR Part 82, Protection of Stratospheric Ozone

- (a) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - (1) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
 - (2) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
 - (3) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
 - (4) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
- (b) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR part 82, Subpart F. except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
 - (1) Persons Opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
 - (2) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - (3) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).
 - (5) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
 - (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
- (c) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
- (d) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.

The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program.

Federal Only - 40 CFR part 82



FORM OP-E01 - COMPLIANCE PLAN/STATUS - SECTION	E		
E0 1.00 - COMPLIANCE PLANISTATUS			
NISTALLATION NAME Bridgeton Landfill, LLC	FIPS 189	PLANT NO. 0312	YEAR SUBMITTED
Brogoton Eandrin, EEO	100	0312	2004
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YES⊠ NO□ (IF NO, COMPLETE A COMPLIANCE PL			
2 COMPHANCE STATUS WITH ALL APPLICABLE REQUIR	REMENTS EFFECTIVE	EDURING THE PERM	T TERM:
WILL YOUR INSTALLATION BE IN COMPLIANCE WITH ALL APPLICABLE RE	QUIREMENTS TAKING EFF	ECT DURING THE TERM OF	THE PERMIT?
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3. COMPLIANCE STATUS WITH ENHANCED MONITORING	AND COMPLIANCE	CERTIFICATION / 1	
IS THE INSTALLATION IDENTIFIED IN THIS APPLICATION IN COMPLIANCE CERTIFICATION REQUIREMENTS?	WITH ALL APPLICABLE EN	HANCED MONITORING AND	COMPLIANCE
YES 🖾 NO 🗍 (IF NO, COMPLETE A COMPLIANCE PL	AN AS DESCRIBED IN	THE INSTRUCTIONS	ON FORM OP-F01.00)
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FORM OP-F01 - GENERAL COMMENTS - SECTION F	•		
F01.00 - GENERAL COMMENTS			
INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Bridgeton Sanitary Landfill, LLC	189	0312	2004
<u> </u>			ļ _ \

B01.00 Regarding 10 CSR 10-6.260 Restriction of Emissions of Sulphur Compounds

Not applicable to the facility control devices per paragraph (1)(A) of the section. Facility is regulated under 40 CFR 60 Subpart WWW.

B01.00 Regarding 40 CFR 60 Subpart Kb Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984. Not applicable to the 1000 gallon mobile and 4000 gallon diesel storage tanks, each storage vessel capacity is less than 75 cubic meters.

B01.00 Regarding 10 CSR 10-6.220 Emission of Visible Air Contaminates

Reason Code K — Not applicable due to exemption per paragraph (1)(H) of the section. Facility is regulated under 40 CFR 60 Subpart WWW.

BO2.00 Regarding 40 CFR 60 Subpart Cc Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills, The Bridgeton Landfill is an existing facility that has been modified after May 30,1991 when it obtained a vertical expansion in 1996. Therefore it is subject to the provisions of NSPS not EG.

B10.00 Regarding 10 CSR 10-5.040 Use of Fuel in Hand-Fired Equipment Prohibited Reason Code K - Not applicable, no hand-fired fuel burning equipment is utilized at this installation.

B10.00 Regarding 10 CSR 10-5.180 Emission of Visible Air Contaminants from Internal Combustion Engines Not applicable, rule was rescinded 11/30/02.

ਤੋਂ 10.00 Regarding 10 CSR 10-5.300 Control of Emissions From Solvent Metal Cleaning Not applicable, parts washer uses water based solvent to clean metal surfaces.

TO GENERALINEORMATION ASSESSMENT OF THE SECOND

B10.00 Regarding 10 CSR 10-5.510 Control of Emissions of Nitrogen Oxides

Not applicable, potential to emit of Nitrogen Oxides is less than 100 tons per year. Maximum potential NOx emissions is based on capacity of 2-3500 SCFM flares is 67 tons/yr.

B10.00 Regarding 10 CSR 10-5.520 Control of Volatile Organic Compound Emissions From Existing Major Sources Not applicable, potential to emit of VOC is less than 100 tons per year. Maximum potential VOC emissions emitted is with no control of landfill gas is 41 tons/yr.

D05 Page 29 of 38 - 10 CSR 10-3.050: The burning of landfill gas should not exceed the rule limit. Landfill gas should be similar to the burning of natural gas. No testing has been performed.

D05 Page 29 of 38 - 10 CSR 10-6.260: The burning of landfill gas should not exceed the SO2 emissions restrictions or exceed the ambient air quality standard. No testing has been performed

The Bridgeton Landfill will replace the existing 2500 SCFM temporary open flare with a 3500 SCFM enclosed flare prior to the expiration of the operating permit. The second enclosed flare is equivalent to the first enclosed flare installed in May 2004. The existing 2500 SCFM open flare is intended to be used only as a temporary control device until the second 3500 SCFM enclosed flare is installed. The open flare will be taken offline and non-operational upon installation of the second enclosed flare. Bridgeton Landfill requests permitting of the permanent control device, the second 3500 SCFM enclosed flare instead of the temporary 2500 SCFM open flare.

DUPLICATE THIS FORM AS NEEDED



FIPS: 189 PLANT: 0312 YEAR: 2004

POTENTIAL ESTIMATED EMISSION CALCULATIONS FOR FORM OP-C01.00

3	HAUL ROAD FOR LANDFILL, PACKERS
4	HAUL ROAD FOR LANDFILL, TRAILERS
6	GALLON DIESEL FUEL STORAGE (4,000 GAL)
7	GALLON DIESEL FUEL STORAGE (1,000 GAL)
9	BORROW AREA STOCKPILE
10	HAUL ROAD BORROW AREA

FIPS: 189 PLANT: 0312 YEAR: 2004

POTENTIAL ESTIMATED EMISSION CALCULATIONS FOR FORM OP-C01.00

Insignificant activities for the Bridgeton Sanitary Landfill are listed on Form C01.00 in the Operating Permit Application.

It requires emissions to be calculated for each emission point listed as insignificant activities requited to be listed. Below is the list of these activities:

- Haul Road for Landfill
- Haul Road for Borrow Area
- Diesel Fuel Storage
- Borrow Area Stockpile

INSTALLATION:

BRIDGETON SANITARY LANDFILL

FIPS: 189 PLANT: 0312 YEAR: 2004

POTENTIAL ESTIMATED EMISSION CALCULATIONS FOR FORM OP-C01.00

HAUL ROAD FOR LANDFILL

Traffic on roadways on the landfill site results in particulate matter emissions. These emissions are estimated using site-specific information and EPA published emission factors for roadways. The table below presents average site-specific values used to determine fugitive emissions from the haul road. The emissions for the haul road are further broken down into two vehicles types: packer trucks and roll-off trucks. See attached worksheets for fugitive emissions calculations for the haul roads assuming 90 percent control. Attached is a summary of the emissions based on AP-42, Fifth Edition, Volume I: Chapter 13: Miscellaneous Sources 13.2.1 Paved Roads - Final Section.:

The waste haul road is paved and approximately 0.25 miles in length. Water spray is routinely applied to the haul road to reduce dust emissions. In order to reduce particulate emissions from the haul road, the facility regularly applies water. The amount and frequency of application is documented in order to achieve the assumed higher particulate control efficiency of 90%.

BRIDGETON LANDFILL, L.L.C. HAUL ROAD EMISSIONS

Emi___on Point 3 and 4: Waste Hauling - Paved*

AP-42, Fifth Edition, Volume I Chapter 13: Miscellaneous Sources 13.2.1 Paved Roads - Final Section

For Vehicles traveling on unpaved surfaces at industrial sites, emissions are estimated from the following equation:

E=k(sL/2).66(W/3)1.5-C

E = particulate emission factor (having units matching the units of k),

: = particle size multiplier for particle size range and units of interest

:L = road surface silt loading (grams per square meter) (g/m2),

V = average weight (tons) of the vehicles traveling the road, and

> = emission factor for 1980's vehicle fleet exhaust, brake wear and tire we

0.016 Ib/VMT

Table 13.2-1.1

7.4 for MSW Table

Table 13.2-1.4

18 tons Packer

22 tons Roll-off

0.11147 Ib/VMT

Table 13.2-1.2

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Roll-Off	0.63	0.56	0.35	1.55	0.16
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Form 2.7 HAUL ROAD FUGITIVE EMISSIONS WORKSHEET

Facility Name			FIPS Coun	ty No.	Plant No.	Year of Data			
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		*****	I PLEASE NO	TE ****	<u> </u>				
. If the sum of	all Vehicle Miles		· ·• - · · -		ucks is less than 100 \	VMT, then the			
					ese forms. However, i				
are not re	ported, documen				for the facility must be	provided.			
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.		30100401			(Check One) Surfactant Spray	Eff %			
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		[2] HAUL	TRUCKINE						
Make/Model			Unicaded 1	ruck Wt (To	ens)				
PACKER PACKER			1	18					
Average Wt of Material	per Load (Ton)		Average Lo	paded Truck	Wt (Tons)				
6	- <u>-</u>		<u> </u>	24					
Average Truck Speed (MPH)					1			
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					ead and type of haul to ber on Form 2.0. The				
Quarrying SCC					Block 7 on Form 2.0.	Calculated FIVITO			
					Control Efficiency (%)				
the AP 42 Sec					be checked in Block	1 and the control			
an east of the second second had					ock 9 on Form 2.0. PM10 EMISSION FA	CTOR			
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(SCC) for Ston	e Quarrying and	Processing Hau	ul Road Emis	sions (3-05-	-020-11) may be used	as a default SCC			
	r. The PM10 em				er is 6.2 Lbs. of PM10	per VMT			
MO 780-1445 (8/99)		Duplica	ate this form	as needed.					

Form 2.0 EMISSION POINT INFORMATION

Facility Na	me			County FIPS No.			Plant No	0.		Year of Data				
BRIDGE	TON SA			189			0312			2004				
<u></u>	·										 .			
Point No.		AIRS ID - Pt	SIC Code		NT IDEN		TION							
—			4953	•	Haul Road for Landfill - Roll Offs									
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Form 2.7 HAUL ROAD FUGITIVE EMISSIONS WORKSHEET

Facility Name	•		[FIPS Co	unty No.	Plant No.	Year of Data			
BRIDGETON SANIT	TARY IANDFII	LL	ļ	189	0312	2004			
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4		30502011			(Check One)	Eff %			
					Surfactant Spray	90			
Length of Road (Miles)	Silt Content (%)	Surface Materia	al of Road	1	☑ Water Spray Documer	1			
0.25	8.3	GRAVEL			1_	l			
	(Default = 8.3%)			A 411 32	☐ Water Spray	50			
Surface Material Moistu	re Content (%)	Days of Rain with	n at least t	.u1" per rear	No Control	0			
0.2	(Default = 0,2%)	105	/ F	Default ≃ 105 Days)	Other (Specify)	†			
	(Delauli = 0,276)	i Di Hadil		NEORMATION					
Make/Model				d Truck Wt (To					
ROLL-OFF				22	,				
Average Wt of Material	per Load (Ton)		Average	Loaded Truck	Wt (Tons)				
17	pa- ==== ()			39	,				
Average Truck Speed (I	MPH)		<u> </u>			 			
5			•						
		VELENCE SECTION	ATERIA	HAULED					
Type of materials(s) Ha	uled	<u> </u>			ns limiting the amount	hauled.			
MUNICIPAL SOL			1	NA	·				
Annual Amount Hauled			Maximu		int Hauled (Tons)				
39,834.0	,			16.0					
	41 CALCU	LATION OF AN	NUAL VE		TRAVELED (VMT)				
,			ANNUAL						
,	ength of Haul R	oad} x {Annual A	Amount H	lauled} / {Avera	ge Wt of Material per	Load}			
Annual VMT			Repo	ortable Level =	Maximum Hourly VM	IT ·			
1,171.6			1 1	he Sum of	0.56	3			
·			all Re	ad VMT > 100					
	[5] CA	LCULATION OF	HAUL F	OAD EMISSIC	N FACTORS				
		PM10 F	EMISSIO	N FACTOR =					
2.6 x ({Silt Content (%	6)} / 12)^0.8[({Un	loaded Truck W	t}+{Avera	ge Loaded Tru	ck Wt})/6]^0.4 × [(365	- (Days of Rain)) / 365]			
	/[(Surface Materia	al Moistui	e Content (%)}	/0.2]^0.3				
*If Av	erage Truck Spe	ed is <15 (MPH	l), multiply	the equation t	by (Average Truck Spe	eed/15)			
5] PM10 Emission Fac	tor								
1.16						Lbs PM10 / VMT			
					ne equation from the A				
					sheet. When using the ad and type of haul the				
Ouarring SCC	Smactors should Shumber (3-05-0	i de calculateu ii 20-11) should bi	oi cacii s e iised as	the SCC numi	ber on Form 2.0. The	calculated PM10			
acconjuig 550					Block 7 on Form 2.0.				
A more detail	ed discussion on	dust control me	ethod and	the resulting C	Control Efficiency (%)	can be found in			
the AP 42 Sec	tion 13.2.2. The	appropriate dus	t control	method should	be checked in Block	and the control			
					ock 9 on Form 2.0. PM10 EMISSION FA	MTABOO CONTRACTOR			
					aul mads, the Source				
					020-11) may be used				
					er is 6.2 Lbs. of PM10				
MO 445 (8/99)				m as needed.					

INSTALLATION:

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BRIDGETON SANITARY LANDFILL

FIPS: 189 PLANT: 0312 YEAR: 2004

POTENTIAL ESTIMATED EMISSION CALCULATIONS FOR FORM OP-C01.00

BORROW AREA STOCKPILE

The Bridgeton Landfill has a borrow area approximately 23 acres in size, where soil is stockpiled to be used for daily operations and closure of the landfill.

Attached are the calculations for the stockpile.

Form 2.0 EMISSION POINT INFORMATION

Facility Na	me		·	FIPS County No.				Plant No.			Year of Data			
	Brid	geton Landfill	, LLC		189			0312			2004			
Point No.		. 15:5 (1) (2) (3)	SIC Code	Baiat	escription		DN *							
_					,		اممما	at						
9 So Cla	ssificati	on Code (SCC)	4953 Emission Fa			, Load in			s Used	with this	s Point	SECON		
3-05-020		(\$2.2)		Tons				,	1	*****	•	a - 25		
SCC Desc							L		<u>`</u>					
		Open Storage	е											
	d Se e -				AOWA			474						
Stack No.		AIRID - St	Height (Ft)			Diameter (Ft))		
Temperatu	re (F)	Velocity (Ft/Min)	Flow Rate (Cu Ft/Mir					List oth		Target Street	g this st		
					2611136A									
Device No	Device Code	Vescription (of Control De	vice	Ca	pture ency (%)	PM10		ontro! D NOx		ticiency (CO		HAPS	
	 _					<u> </u>	1							
					 .	<u> </u>								
				Units	AP MONE	A VITE SE	Hours/			Jan-Ma	- (P/)	A = 1	(O/)	
Annual Th	138456			UINGS	Tons		Hours	24		L .	0	Apr-Jur	1 (<i>70)</i> D	
Maximum	House F	Design Rate		Units/H	<u> </u>		Day/we	ek 7	,	Jul-Ser	2 (96)	Oct-De	c (P/s)	
Atavittioiti	NA NA	sesiāli vale		Official	Tons		Week/			100,-00,	1	1	99	
	area Care Transport							13						
Source		nace sale in equipm	Alexió)				AP 42/	Other R	eferenc	e	[5]List	other wo	rksheets	
	341°231			1		kanta anten	pper				1	2.8		
Air	[6]	[7]	[8]		[9]	[10				+				
Pollutant	Source	Emission Factor (Lbs/Unit)	Ash or Sulfur		erall ontrol	Actu Emiss	ions							
2440	ļ	(====,	(%)		ciency	(Tons	/Yr)				koʻr ne			
₹M10	2.8	0.056				3.8	7							
3Ox														
10x		 			_									
/OC	1	ļ					<u></u>							
;0														
ead	 			_										
IAPs	1						 -							
7							V 7.5							
MO 7°4-16	321 (11/99)	1												

Form 2.0 EMISSION POINT INFORMATION

Facility Na	acility Name				FIPS County No.			Plant No.			Year of Data			
	Bridę	geton Landfill,	, LLC			189			0312			2004	}	
Point No.		ali Kurajosaka j		escription										
9			1422		•	' k Piles, W	lind							
	assification	on Code (SCC)		ctor Unit		K Files, V		r of SCC	s Used	with this	Point	SEGNO		
3-05-025	5-07		Poun	ds/Acr	es ·				1					
SCC Desc	•	Mirneral Products	5									- Annual Annual Annual Annual Annual Annual Annual Annual Annual Annual Annual Annual Annual Annual Annual Ann	(edited-age (17-1)	
		Sand/Gravel												
		Open Storage			NEW VEI	THE STATE OF THE S								
Stack No.		Aurolly, Sec. 3	Height (Ft)		i	Diameter (Ft)							
	· (5)				<u> </u>	- (O. F)/h (:	:_\			not by Asia	ellett	(Calls		
i emperati	perature (F) Velocity (Ft/Min)				Liow Kai	te (Cu Ft/Mi	in)		List oth	er points	s s naring	this sta	ICK.	
						जन्म । जन्म ।	no real							
Device No.	Code	Description (Control De	vice	Ca Efficie	pture ency (%)	PM10	ISOX C	ontrol Di		CO		HAPs	
		·	<u></u>											
												·		
Annual Th	roughpur			Units			Hours/			Jan-Ma	r (%)	Apr-Jur	(%)	
ranogi vi	23.0	•		0	Acres			24			0 ,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0	
Maximum	Ηουτίν Γ	Design Rate		Units/H	r		Day/we	ek 7		Jul-Sep	(%)	Oct-De	c (%)	
		, o o , g, , , , = , o			Acres		Week/				1	1	99	
					and See	ionicilalisi		13						
Source	0.00	is to long realizate		100 - 1 2 2 3 NE			AP 42/	Other R	eference	9	[5]List o	other wo	rksheets	
25 200		Mass Bridge Species Africa	, o leage	16°			n ber					2.8		
Air	(6)	[7]	[8]		[9]	[10								
Pollutant	Source	Emission Factor (Lbs/Unit)	Ash or Sulfur	I _	erall introl	Actu Emiss		TOTAL PROPERTY.	iniloj Alasalia					
200			(%)		ciency	(Tons	/Yr)			in s	1.0	i ja		
PM10	2.8	240.75]		2.7	7							
SOx														
NOx		·				 	 							
VOC						 								
_		, <u> </u>				<u> </u>								
20		}				1								
Lead	1													
HAPs	 													
	24.4													

FORM 2.8 STORAGE PILE WORKSHEET Facility Name FIPS County No. Plant No. Year of Data Bridgeton Landfill, LLC 0312 189 2004 THE OF MERCANDERS AND THE SERVICE CO Point No. Type of Material Stored 9 3-05-020-07 Clav 3-05-025-07 Moisture Content (%) Area of Storage Pile (Acres) 10 23 entire borrow area (Default = 0.7%) Silt Content (%) Raw Material Loading Raw Material Unloading 6 Method (Check One) Method (Check One) (Default = 1.5%) ☐ Barge 🗔 Barge Storage Duration (Days) ☐ Rail 🔲 Raii **Ⅲ** Truck ☑ Truck 30 ☐ Conveyor ☐ Conveyor Annual Amount Stored (Tons) Other (Specify) Other (Specify) 3.000,000 Maximum Hourly Amount Stored Mean Wind Speed Mph) % of Time Wind > 12 Mph 10 32 (Default = 10 Mph) (Default = 32%) Dry Days per Year Vehicle Activity Factor 260 0.25 (Default = 260 Days (Default = 1.0) STEAST STEAST OF .00224 x ({Mean Wind Speed} / 5)^1.3 / ({Moisture Content (%)} / 2)^1.4 Load In-Load Out Factor 0.0005795 0.05 x ({Silt Content (%)} / 1.5) x ({Dry Days per Year} / 235) x {Vehicle Activity Factor} Vehicle Acitvity Factor 0.0553191 0.85 x ({Silt Content (%)} / 1.5) x ({Storage Duration (Days)}) x ({Dry Days per Year} / 235) x ({% of Time Wind > 12 mph} / 15) lb/acre Wind Erosion 240.74894 ACTIVITY PM 10 EMISSION FACTOR = {[3-A-1]Load In-Load Out Factor} + {[3-A-2] Vehicle Activity Factor} 0.055898616 PM 10 Emission Factor 0.0558986 lb. PM10/Ton 240.748936 lb PM10/Acre If you use a Source Classification Code (SCC) number and Emission Factor from the list in the instructions for this form, make sure to complete Block 1, Storage Pile Information for each storage pile. When using this form to calculate the PM10 Emission Factor, use the Default SCC 3-05-020-07. Enter the PM10 Emission Factor in the PM10 box in Block 7 of Form his storage pile. يانيون

Duplicate this form as needed.

VIO 780-1446 (11/99)

INSTALLATION:

BRIDGETON SANITARY LANDFILL

FIPS: 189 PLANT: 0312 YEAR: 2004

POTENTIAL ESTIMATED EMISSION CALCULATIONS FOR FORM OP-C01.00

4,000 GALLON DIESEL STORAGE TANK

The Bridgeton Landfill has one 4,000 gallon distillate fuel oil number 2 tank used for fueling landfill operations equipment. EPA's software TANKS 4.09b was utilized to estimate VOC emissions from the tank.

See the attached Tanks 4.0 Emissions Report for emissions calculations.

TANKS 4.0

Emissions Report - Summary Format Tank Identification and Physical Characteristics

Identification

User Identification:

Bridgeton Landfill EU06

City: State:

St. Louis Missouri

Company: Type of Tank: Bridgeton Landfill, LLC

Horizontal Tank

Description:

Emission Point 6: 4000 gallon stationary tank

Tank Dimensions

Shell Length (ft): Diameter (ft):

18.00 10.00

Volume (gallons):

4,000,00

Turnovers:

20,00

Net Throughput (gal/yr):

Is Tank Heated (y/n):

80,000.00

Is Tank Underground (y/n):

·N

N

Paint Characteristics Shell Color/Shade:

Red/Primer

Shell Condition: Good

Breather Vent Settings

Vacuum Settings (psig):

-0.03

Pressure Settings (psig):

0.03

Meteorological Data used in Emissions Calculations: St. Louis, Missouri (Avg Atmospheric Pressure = 14.46 psia)

TANKS 4:0 Emissions Report - Summary Format Liquid Contents of Storage Tank

					Liquid								
			y Liquid Surf.		Bulk				Vepor	Liquid	Vapor		
		Tempe	valures (deg F	}	Temp.	Vapor	Pressures (pala		Mot.	Mass	Mess	Moi.	Basis for Vapor Pressure
Mixture/Component	Month	Avg.	Mbs	Max	(deg F)	Αγ <u>ρ</u> .	<u>Mfin.</u>	Max	Weight	Frect	Fred.	Weight	Calculations
	AW	45											
Distillate fuel oil no. 2	AR	67.87	56,17	79,57	60.37	0.0084	0,0057	0,0121	130,0000			168.00	Option 5: A=12.101, B=8907

TANKS 4.0 Emissions Report - Summary Format Individual Tank Emission Totals

Annual Emissions Report

		Losses(lbs)	
Components	Working Loss	Breathing Loss	Total Emissions
Distillate fuel oil no. 2	2.07	5.36	7.43

INSTALLATION:

BRIDGETON SANITARY LANDFILL

FIPS: 189 PLANT: 0312 YEAR: 2004

POTENTIAL ESTIMATED EMISSION CALCULATIONS FOR FORM OP-C01.00

1,000 GALLON DIESEL STORAGE TANK

The Bridgeton Landfill has one mobile 1,000 gallon distillate fuel oil number 2 tank used for fueling landfill operations equipment. EPA's software TANKS 4.09b was utilized to estimate VOC emissions from the tank.

See the attached Tanks 4.0 Emissions Report for emissions calculations.

TANKS 4.0

Emissions Report - Summary Format Tank Identification and Physical Characteristics

Identification

User Identification:

Bridgeton Landfill EU07

City: State: St. Louis Missouri

Company:

Bridgeton Landfill, LLC

Type of Tank: Horizontal Tank

Description:

Emission Unit 7: 1,000 gallon mobile field tank

Tank Dimensions

6.00

Shell Length (ft): Diameter (fl): Volume (gallons):

5.33 1,000.00

Turnovers:

80.00

Net Throughput (gal/yr):

Is Tank Heated (y/n):

80,000.00

Is Tank Underground (y/n):

Paint Characteristics

Shell Color/Shade:

Gray/Light

Shell Condition:

Good

N

N

Breather Vent Settings

Vacuum Settings (psig):

-0.03

Pressure Settings (psig):

0.03

Meteorological Data used in Emissions Calculations: St. Louis, Missouri (Avg Atmospheric Pressure = 14,46 psia)

TANKS 4.0 Emissions Report - Summary Format Liquid Contents of Storage Tank

					Liquid								 _
•			Liquid Surf.		_ Budk				Vapor	Liquid	Vepor		
\$ at at \$	Manth		ratures (deg F) Min.	Mex.	Temp		Pressures (pale Min.	,	Mol.	Mass Fract	Mass		Basis for Vapor Pressure
Mixture/Component	Month	Avg.	Milit.	MIBAL	(deg F)	<u>Avg.</u>	NIF:	Max.	Weight	FIBUL,	Fract	Weight	Calculations
Distillate fuel oil no. 2	All	62.99	54.57	71.41	58.27	0.0072	0.0054	0.0094	130,0000			188.00	Onlers 5: April 101 Be8907

TANKS 4.0 Emissions Report - Summary Format Individual Tank Emission Totals

Annual Emissions Report

	l	Losses(lbs)	
Components	Working Loss	Breathing Loss	Total Emissions
Distillate fuel oil no. 2	0.96	0.31	1.27

FIPS: 189 PLANT: 0312 YEAR: 2004

POTENTIAL ESTIMATED EMISSION CALCULATIONS FOR FORM OP-C01.00

HAUL ROAD FOR BORROW AREA

Traffic on roadways on the landfill site results in particulate matter emissions. These emissions are estimated using site-specific information and EPA published emission factors for roadways. The table below presents average site-specific values used to determine fugitive emissions from the borrow area haul road. The facility operates two articulated dump trucks to transport soil from the borrow area to the landfill for soil cover. See attached calculations for fugitive emissions calculations for the haul roads assuming 90 percent control. Attached is a summary of the emissions based on AP-42, Fifth Edition, Volume I: Chapter 13: Miscellaneous Sources 13,2.2 Unpaved Roads - Final Section.

The borrow area haul road is unpaved and approximately 0.57 miles in length. Water spray is routinely applied to the haul road to reduce dust emissions. In order to reduce particulate emissions from the haul road, the facility regularly applies water. The amount and frequency of application is documented in order to achieve the assumed higher particulate control efficiency of 90%.

BRIDGETON LANDFILL, L.L.C. HAUL ROAD EMISSIONS

Emission Point 10: Unpaved Road Traffic - Fugitive Emissions

*AP_12, Fifth Edition, Volume I Chapter 13: Miscellaneous Sources 13.2.2 Unpaved Roads - Final Section

For Vehicles traveling on unpaved surfaces at industrial sites, emissions are estimated from the following equation:

8,30

臣=k(s/12)*(W/3)*

Table 13.2.2-2. Constants for Equations 1a and 1b

		Production of the second	
k	0.23	1.5	4.9
a	0.9	0.9	0.7
b	0.45	0.45	0.45

^{*}Assumed equivalent to TSP

where k, a, b, c and d are empirical constants (Reference 6) given below and

E = size-specific emission factor (lb/VMT)

s = surface material silt content (%)

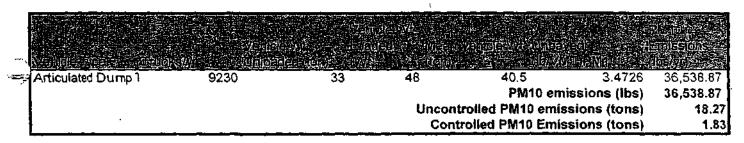
W = mean vehicle weight (tons)

M = surface material moisture content (%)

S = mean vehicle speed (mph)

Haul Ro

0.57 miles



BRIDGETON LANDFILL, L.L.C. HAUL ROAD EMISSIONS

Emission Point 10: Unpaved Road Traffic - Fugitive Emissions

AP ____ Fifth Edition, Volume I Chapter 13: Miscellaneous Sources 13.2.2 Unpaved Roads - Final Section

For Vehicles traveling on unpaved surfaces at industrial sites, emissions are estimated from the following equation:

!=k(s/12)a(W/3)b

Table 13.2.2-2, Constants for Equations 1a and 1b

	BYZER Z	PMEAN CALL	BYST .
k	0.23	1.5	4.9
a	0.9	0.9	0.7
b	0.45	0.45	0.45

^{*}Assumed equivalent to TSP

where k, a, b, c and d are empirical constants (Reference 6) given below and

= size-specific emission factor (lb/VMT)

: = surface material sitt content (%)

8.30

V = mean vehicle weight (tons)

A = surface material moisture content (%)

3 = mean vehicle speed (mph)

taul Ro

0.57 miles

A Hel Ede Vi	r di San Santala Bangarah dipolarah	VAJER VIII. SP. SPESI Disposition (PARO)	ijaktoja konas aktoja kritacija bleskej	i da je Vogalnijav Ligoro	ile savator i se il	
Articulated Dump	9230	33	48	40.5	3.4726	36,538.87
Trucks				PM10 emi	ssions (Ibs)	36,538.87
			Uncor	ntrolled PM10 emis	sions (tons)	18.27
L			Cor	trolled PM10 Emis	sions (tons)	1.83

Form 2.0 EMISSION POINT INFORMATION Facility Name County FIPS No. Plant No. Year of Data Bridgeton Landfill, LLC 189 0312 2004 HIPOINI LIENINE SANCORIO DE LA COMPANIO DE LA COMP Point No. SIC Code Point Description 4953 Haul Road, Borrow Area Number of SCCs Used with this Point Source Classification Code (SCC) **Emission Factor Units** 50100401 lbs/VMT **SCC Description** Unpaved Road Traffic: Fugitive Emissions Diameter (Ft) tack No. Height (Ft) emperature (F) Velocity (Ft/Min) Flow Rate (Cu Ft/Min) List other points sharing this stack. RIPAR OF ROLL WORKS Control Device Efficiency (%) Device Description of Control Device Capture Device Efficiency (%) PM10 SOX NOX VOC CO Lead | HAPs No. Code CD-002 61 Hours/Day annual Throughput Units Jan-Mar (%) Apr-Jun (%) 4,403 VMT 25 25 Day/week Jul-Sep (%) ım Hourly Design Rate Units/Hr Oct-Dec (%) Week/Year 5.06 VMT/Hr 25 25 deems solutions solutions AP 42/Other Reference List other worksheets 2.7 Αіг Source Emission Ash or Control Actual Maximum **Potential** Potential | Pollutarit Factor Sulfur **Emissions** Controlled **Efficiency** Hourly Uncontrolled (Lbs/Unit) (Lbs/Hr) (%) (%) (Tons/Yr) (Tons/Yr) (Tons/Yr) M10 0.52 90 0.23 2.27 22.72 2.7 1.03 \overline{Ox} Ox \overline{oc} $\overline{\circ}$ ∌ad **APs**

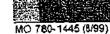
Duplicate this form as needed.

10 780-1431 (11/99)

Form 2.7 HAUL ROAD FUGITIVE EMISSIONS WORKSHEET Facility Name FIPS County No. Plant No. Year of Data Bridgeton Landfill, LLC 189 0312 2004 ***** PLEASE NOTE ***** If the sum of all Vehicle Miles Traveled (VMT) for all haut roads and trucks is less than 100 VMT, then the PM10 emissions for all the haul roads do not need to be reported on these forms. However, if the emissions are not reported, documentation on the actual annual VMT figures for the facility must be provided. Point No. AIR ID-Pt SCC Type of Dust Control Control 10 50100401 (Check One) Eff % Surfactant Spray 90 Length of Road (Miles) | Silt Content (%) | Surface Material of Road Water Spray Documented > 50 8.3 0.57 Rock Water Spray (Default =8.3%) 50 Surface Material Moisture Content (%) Days of Rain with at least 0.01" per Year No Control ٥ 0.2105 Other (Specify) (Default = 105 Days) (Defautt = 0.2%) MORNING DIRVING NE Make/Model Unloaded Truck Wt (Tons) Articulated dump trucks Average Wt of Material per Load (Ton) Average Loaded Truck Wt (Tons) 48 Average Truck Speed (MPH) Type of materials(s) Hauled List any permit conditions limiting the amount hauled. Soil Cover Maximum Hourly Amount Hauled (Tons) Annual Amount Hauled (Tons) 66.6**ป38,456** AND ASSOCIATED ASSOCIATION ASS ANNUAL VMT = 2 x {Length of Haul Road} x {Annual Amount Hauled} / {Average Wt of Material per Load} Annual VMT Maximum Hourly VMT Reportable Level = 5.06 10,523 the Sum of all Road VMT > 100 PM10 EMISSION FACTOR # 2.6 x ({Silt Content (%)} / 12)^0.8[({Unloaded Truck Wt}+{Average Loaded Truck Wt})/6]^0.4 x [(365 - {Days of Rain}) / 365] /{{Surface Material Moisture Content (%)}/0.2]^0.3 *If Average Truck Speed is <15 (MPH), multiply the equation by (Average Truck Speed/15) 5) PM10 Emission Factor The PM10 emission factor for the haul roads can be calculated using the equation from the AP 42 section on Unpaved Haul Roads (Section 13.2.2) provided in Block 5 of this worksheet. When using these equations, PM10 emission factors should be calculated for each separate haul road and type of haul truck. The Stone Quarrying SCC number (3-05-020-11) should be used as the SCC number on Form 2.0. The calculated PM10

emission factor should be entered in the PM10 Box in Block 7 on Form 2.0.

A more detailed discussion on dust control method and the resulting Control Efficiency (%) can be found in the AP 42 Section 13.2.2. The appropriate dust control method should be checked in Block 1 and the control efficiency should be entered in the PM10 box of Block 9 on Form 2.0



FIPS: 189 PLANT: 0312 YEAR - 2004

POTENTIAL ESTIMATED EMISSION CALCULATIONS FOR FORM OP-D03.00

1	MUNICIPAL	SOLID	WASTE	LANDFILL
		~~==		

- 2 3500 SCFM ENCOSED FLARE #1
- 8 2500 SCFM TEMPORARY OPEN FLARE (TO BE REMOVED IN 2004)
- 8 3500 SCFM ENCOSED FLARE #2 (TO REPLACE TEMPORARY FLARE IN 2004)

FIPS: 189 PLANT: 0312 YEAR - 2004

POTENTIAL ESTIMATED EMISSION CALCULATIONS FOR FORM OP-D03.00

man ufactured by John Zink. Previously, the landfill operated two temporary 1000 SCFM skid mounted flares and one enclosed 2500 SCFM flare. During relocation of the enclosed flare in 2002, the flare experienced severe damage beyond repair. During this period, the landfill was in the process of updating the gas collection and control system design plan. With SLCDOH approval, Bridgeton replaced the 2500 SCFM enclosed flare with a 2000 SCFM skid-mounted flare rental to immediately handle the landfill gas being generated. The 2000 SCFM skid-mounted flare was subsequently replaced with a 2500 SCFM in July 2003 and the rental flare was shutdown and made non-operational.

The 2500 SCFM open flare manufactured by Perennial Energy was installed in December 2002 to temporarily manage landfill gas collected at the site until the permanent gas control system was permitted and constructed. The open flare will be taken off-line upon installation of the second 3500 SCFM enclosed flare. The 2500 SCFM Open Flare is designed for minimum 98 percent destruction efficiency of waste hydrocarbons and organic compounds.

In December 2003 approval was obtained from Tim Froeshner, SLCDOH, to install two-3500 SCFM enclosed flares to effectively control landfill gas within the 52 acre sanitary landfill. The first 3500 SCFM enclosed flare was brought on-line May 2004. Skid-mounted flare #1 taken was offline and decommissioned upon operations of the enclosed flare. Skid-mounted flare #2 was taken offline December 5, 2003 due to limitations of landfill gas collection within the waste mass, the additional flare capacity could not be supported.

The second 3500 SCFM enclosed flare is being constructed and shall commence operations at the landfill in 2004. The existing 2500 SCFM open flare will be taken off-line upon installation of the second enclosed flare. An initial performance test of each enclosed flares will be completed within 180 days of initial startup.

The approved gas control system includes two 3500 SCFM enclosed flares. To date the first enclosed flare was brought on-line in May 2004. The second 3500 SCFM enclosed flare is slated to be installed during the latter part of 2004. The capacity of the two enclosed flares will adequately manage the landfill gas generated within the 52-acre sanitary landfill.

Both flares are manufactured by John Zink, model 11' X 40' ZTOF. Specifications on the two flares are enclosed. The Enclosed Flare System handles a maximum flow rated of 3500 SCFM each with a minimum 98 percent destruction efficiency of waste hydrocarbons and organic compounds. It was assumed the facility's landfill gas composition (by volume) was 50% methane. Emissions from

FIPS: 189 PLANT: 0312 YEAR - 2004

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POTENTIAL ESTIMATED EMISSION CALCULATIONS FOR FORM OP-D03.00

the second enclosed flare were estimated utilizing APCP's EIQ landfill spreadsheet (enclosed).

The collection and control system must be operational at all time in accordance with NSPS and MACT. Potential to emit emissions were determined based on the collection and control of 7000 SCFM of landfill gas with an average gas collection efficiency of 75 percent was assumed in accordance with, Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1: Chapter 2: Solid Waste Disposal.

Attached is fugitive landfill gas emissions based on landfill gas generation using AP-42 default values as determined in AP-42, Fifth Edition, Volume 1 Chapter 2.4: Municipal Solid Waste Landfills. Typical landfill gas collection ranges from 60 to 85 percent, the attached calculations assume 75 percent collection based on a landfill generation rate of 7000 SCFM with landfill gas composition (by volume) of 50% methane.

As outlined in the Air Construction Source Notification, dated October 8, 2003, the flares exceed the PTE thresholds for PSD evaluation. Under New Source Review Revisions, promulgated March 3, 2003, the revisions exclude the flares from major new source permitting. The flares are required under NSPS and MACT and meet 40 CFR Part 52.21(b)(32)(iv) specifications as a pollution control project (PCP). The Notice process for listed projects in accordance with 40 CFR 51.165(e)(4) was submitted upon Bridgeton Landfill's behalf for the construction of two 3500 SCFM enclosed flares and subsequently approved by the St Louis County Department of Health.

Attached are the potential to emit calculations for the existing control systems consisting of one 2500 SCFM open flare and one 3500 SCFM enclosed flare and the permitted control system consisting of two 3500 SCFM enclosed flares.

BRIDGETON SANITARY LANDFILL METHANE GENERATION

Model Parameters

Lo : 100,00 m/3 / Ma k: 0.0400 1/yr

NMOC: 595, 00 ppmv

Methane: 50,0000 % volume Carbon Dioxide: 50.0000 % volume :

Landfill Parameters

Landfill type: No Co-Disposal

(موسور

2002

2003

2004

2005

2006

2008

2009

2007

1.194E+07

1.264E+07

1.282E+07

1.300E+07

1.300E+07

1.300E+07

1.300E+07

1.300E+07

Year Opened : 1979 Current Year : 2004 Closure Year: 2006 Maximum CH4 GEN: 37,540,000 Capacity: 13 000000 Mg CH4 GEN: 2,523

5,045 Average Acceptance Rate Required from LFG GEN:

Current Year to Closure Year: 180681.00 Mg/year

Model Results

		ethane Emissior	· · · - • -	======================================
Year	Refuse In Place (Mg)	(Mg/yr)	(Cubic m/yr)	
2222		=======================================	#=====================================	
1980	1.423E+05	3.799E+02	5.694E+05	
1981	2.850E+05	7.456E+02	1.118E+06	
1982	4.267E+05	1.095E+03	1.641E+06	
1983	6.738E+05	1.711E+03	2.565E+06	
1984	9.208E+05	2.303E+03	3.452E+06	
1985	1.168E+06	2.872E+03	4.305E+06	
1986	1.415E+06	3.419E+03	5.125E+06	
1987	1.925E+06	4.646E+03	6.964E+06	•
1988	2.435E+06	5.825E+03	8.731E+06	
1989	2.945E+06	6.958E+03	1.043E+07	
1990	3.350E+06	7.767E+03	1.164E+07	
1991	3.979E+06	9.139E+03	1.370E+07	
1992	4.422E+06	9.964E+03	1.493E+07	
1993	4.880E+06	1.079E+04	1.618E+07	
1994	5.337E+06	1.159E+04	1.737E+07	
1995	5.799E+06	1.237E+04	1.854E+07	
1996	6.460E+06	1.365E+04	2.046E+07	
1997	7,200E+06	1.509E+04	2.261E+07	
1998	8.027E+06	1.670E+04	2.504E+07	
1999	8.856E+06	1.826E+04	2.737E+07	
2000	9.800E+06	2.006E+04	3.008E+07	
2001	1.079E+07	2.193E+04	3.287E+07	

3.618E+07

3.754E+07 3.679E+07

3.607E+07

3.466E+07

3.330E+07

3.199E+07 3.074E+07

2.414E+04

2.504E+04

2.454E+04

2,406E+04

2.312E+04

2.222E+04

2.134E+04

2.051E+04

Form 2.0 EMISSION POINT INFORMATION

acility Nar	ne				FIPS Co	County No.			Piant No.			Year of Data		
Bric	geton S	anitary La	andfill, LLC			189	0312			2 2004				
oint No.							NOITE						9 (8 8 8	
~EP	- {	AMOIDE	Ţ		•		Londi	201						
EP1 4953 Municipal Solid Waste Landfill Ource Classification Code (SC Emission Factor Units Number of SCCs Used							with this	Point I	Sea No					
50100			Acres of L						1					
CC Descr									<u></u>	·		ga ngaka balanda	sitema for a bare	
	Fugitive	Emission	IS .											
Stack No.		AIRID - St	Uniobt /Et\	2) S	TACKVE	NT PARA Diameter		<u> </u>		u a	an-circu			
Mack No.		5	neight (Ft)			Diameter	(11)			Diamet ross Sc	er⇒(1. etonal/	28A)*1. Yea in s	z sq. teet)	
emperatu	re (F)	Velocity (Ft	/Min)		Flow Rat	te (Cu Ft/N	Ain)		List oth	er point	s sharing	y this sta	ack.	
	Davisa					(Control E	quipme	nt C	ontroi Di	Suice Ef		(0/)		
Device No.	Device Code	Description	n of Control I	Jevice	Efficie	oture ency (%)	PM10						HAPS	
CDI	23	Collection a	and		75		<u> </u>							
		Control Sys	stem		<u> </u>		<u> </u>			98			989	
unnual Thr	oughput	*		[4] OF Units	ERATIN	RATE/S	Hours/			Jan-Ma	ır /96.)	Apr-Jur	1 /9/4)	
amudi i iii	52 52			Onns	Acres of	Landfill	Day/we	24			!5		25	
laximum !		sign Rate		Units/H				7		Jul-Sep		Oct-De		
- · ·	52.0000		l		Acres of	Landini	Week/	rear 52		1	25		25	
					Emissio	n Celculati					(real text			
CEM	- 3	s Faidor (Lis Mass Balan P-42 or FIR			## Wo	rksheet No	AP-42	Table 2	eference .4-5	•	2.0L, 2		rksheets	
Air	[6]	- [7]	[8]		[9]	[10	-							
Pollutant	Source	Emission Factor (Lbs/Unit)	Ash or Sulfur (%)	Co	verali ontrol ciency	Actu Emiss (Tons	sions	Hourly	imum (Lbs/Hr) s/Hr)	Cont	ential rolled rs/Yr)	Unco	ential ntrolled ns/Yr)	
M10		1550000	\ <u>-</u> _\ <u>-</u> -		<u> </u>	0.0								
Ox	<u> </u>	 					<u>-</u>							
Ox	 					0.0	00							
<u>oc</u>	2L	647.0			 -	16.	82	2	.33	10.22		40.87		
ō						0.0	00							
∍ad						0.0	00							
APs	21	82.2				2.	14	Ó.	296	1.298		5.194		
1016	21 (11/99)	avenue jourge tight hour tables b			***************************************								<u></u>	

LANDFILL WORKSHEET TYPICAI

This worksheet is for open or closed fandfills.

Based on AP-42, 2.4, 11/98. Created 10/03

General Information

图图 220 音解 (t)
(R)
C C

Control Device Information

	Control Device 1	Control Device 2
Туре		
Destruction efficiency (%)		
% of gas to this control		50.00

Defaults

	Default Value
L for Qch4=	第2000年7月1日
k for Qch4=	
Cs (for SOX):	ppmv as S
Ccl (for HCl):	ppmv as CI
Temp of LF gas °C:	(T)

Ozone Season Information: (Throughput/385)

Emission T	Emission Factor
Fugitive	acres/day
To control	mmcfyr

Gas Generation Information

	Throughput m3/yr	mmcilyr
QCH4 Total	52,091,585	1839.35
QCH4 Uncollected	13,022,896	459.84
QCH4 Collected	39,068,669	1379.52
QCH4 remaining on site	39,068,689	1379,52
QCH4 Collected to CD1	19,534,344	889.76
QCH4 Collected after CD1	390,887	13.80
QCH4 Collected to CD2	19,534,344	689.76
QCH4 Collected after CD2	390,687	13.80

	Equations
QCH4 Total	Qch4=L R (e^-kc - e^-kt)
QCH4 Uncollected	QCH4*(1-CE)
QCH4 Collected	QCH4*(CE)
QCH4 remaining on site	QCH4 Collected - sent off site
QCH4 Collected to CD1	QCH4on site*(CE)
QCH4 Collected after CD1	QCH4on site*(CE)*(1-DE)
QCH4 Collected to CD2	QCH4on site*(CE)
QCH4 Collected after CD2	QCH4on site*(CE)*(1-DE)

Conversion Factors		
mmcf to m3	28,320.6	
kg to lb	2.2046	

Emissions Data - Flare

SCC: 5-01-004-10 or 5-03-006-01



Emissions Data - Internal Combustion Engine

SCC: 5-01-004-21

		Use If CO 1 is IC Use if CD 2			
		Engine	Engine		
Throughput (mmcf/yr)	689.8	689,8		
	NOx	250	250		
Emission Factors	CO	470	470		
(lb/mmcf)	PM10	48	48		
Emissions	NOx	86.22	86,22		
	CO	162.09	162.09		
(tons/year)	PM10	16.55	16.55		

Emissions Data - Boller/Steam Turbine

SCC: 5-01-004-23

		Use if CD 1 is Boiler	Use If CD 2 la Boller
Throughput (mm	elfyr)	689.8	689,8
Emission	NOx	33	33
Factors	CO	5	6
(lb/mmcf)	PM10	8	8
Emissions	NOx	11.38	11.38
	CO	1.97	1.97
(tons/year)	PM10	2,83	2.83

Emissions Data - Gas Turbine

SCC: 5-01-004-20

		Use if CD 1 is Ges Turbine	Use If CD 2 is Gas
Throughput (mm	cflyr)	669.8	689.8
Emission	NÖx	87	87
Factors	CO	230	230
(lb/mmcf)	PM10	22	22
Emissions	NOx	30.00	30.00
(tons/year)	CO	79.32	79.32
	PM10	7.59	7.59

Emissions Data

Fu	gitives	To Control Device 1	To Control Device 2
Throughput 200	Acres	mmcf methaneryr	Selection of methans/yr
VOC Emission Factor	# lb/acre	menci methanelyr	to/mmcf
HAP Emission Factor	lb/acre		
HAP Emission Factor for Control Devices (includes h		Ib/mmcf	Wall Self to Ib/mmcf
SOx Emission Factor for Control Devices	,	to minef	and the lb/mmcf
SOx Emissions		9,622 lbs/yr	9622 lb/yr

VOC and HAP Emissions	endisiopresosnesi																
	Constants Constants Constants				no beesd enoi		lasions to CD 1 ed ON										
		<u> </u>			13,022,896	m3/yr	19,534,344	m3/yr									
Chemical	CAS#	molec, weight	Default Conc. ppmv	INMOC factor	QNMOC	Fugitive Emissions (b/yr	QNMOC	Collected Uncontrolled lb/yr									
HAPS ONLY																	
111 Trichloroethane	71558	1	0.48	12.02	11.38	范斯里斯的 从	17.07										
Dichloromethane	75092		14.3	7,65	338.93	THE SERVICE	508.40										
12 Dichloroethane	107062		0.41	8.92	9.72		14.58										
Chloroform	67 6 63	1	0.03	10.76	0.71		1.07	TAX BASE OF PARTIES AND AN ADDITION									
Chloromethane	74873	50.49	1,21	4,55	28.68		43.02	TATALON MATERIAL PROPERTY									
Perchloroethylene	127184	165.83	3.73	14,94	88.41		132.61										
Mercury	20133	200.61	0.000292	18.08	0.007		0.010										
Hydrochloric Acid	7647010	<u> </u>		2				新教教育以及									
TOTAL HAPs ONLY (lb/yr)	1				_	4275.34	HAP total	11,125,20									
TOTAL HAPs ONLY (tonsiyr)	<u>.</u> _		<u> </u>				Includes HC1	6.6									
HAPS & VOC	İ																
1122 Tetrachloroethane	79345	187.85	1,11	15.13	26.31	ACCULATION STATES	39.46	A CHARGE									
11 Dichloroethane	75343	98.97	2.35	8.92	55.70		83.55	MAINWEIL MEDICAL STREET, 2003									
11 Dichloroethylene	75354	96.94	0.2	8.74	4.74		7.11	DESCRIPTION CHARLEST TO									
12 Dichtoropropane	78875		0.18	10,18	4.27		6.40	TOTAL PROPERTY SECURITY	Acrylonkille	107131	53.06	6.33	4.78	150.03		225.05	
Carbon disulfide	75150		0.58	6.86	13,75		20.62	THE RESIDENCE OF THE RE									
Carbon tetrachtoride	58235	153.84	0.004	13.86	0.09	West of the City o	0.14	ENGINEERING ASSESSMENT TO A SECOND SE									
Carbonyl sulfide	463581	60.07	0.49	5.41	11.61		17.42	THE PROPERTY OF THE PARTY OF TH									
Chlorobenzene	108907	112.56	0.25	10.14	5.93		8.89	INVESTMENT OF THE PARTY IN THE									
Chloroethane	75003	64.52	1.25	5.81	29.63		44.44	ISSUE OF THE PROPERTY OF THE P									
Dichlorobenzene	106467	147	0.21	13.25	4.98		7.47										
Ethy! benzene	100414	106.16	4.61	9.57	109.26		163.90										
Ethylene dibromide	106934	167.68	0.001	16.93	0.02		0.04										
Hexana	110543	86.18	6,57	7,77	155.72		233.58										
Vinyl chloride	75014	62.5	7.34	5.63	173,97		260.98										
Methyl ethyl ketone	78933	72.11	7.09	6.5	168.04		252.07										
Methyl Isobutyl ketona	108101	100.16	1,87	9.03	44.32		66.48										
Trichloroethylene	79016	131.4	2.82	11.84	65.84		100.26										
Xylene	1330207	106.16	12.1	9.57	286.79		430.19										
Benzene	71432	78.11	11,1	7.04	263.09	10.574	394.63										
Toluene	108883	92,13	39.3	8.3	931.48		1397.21	PSD-EBAKKAC SABBOAN									
TOTAL HAPS & VOC (lb/yr)						24,276.19		35,414.28									
TOTAL HAPs & VOC (tons/yr)						12.14		18.2									
VOC ONLY		<u> </u>															
2 Propanol	J	66.11	50.1	5 42	1187.45	MANAGEMENT AND AND AND AND AND AND AND AND AND AND	1781.18	运送的基础									
Bromodichlomethane	ł	163.83	3.13	14.77	74.19		111 28										
Butane	- 1	58.12	5.03	5.24	119.22												
Dimethyl sulfide		62.13	7.82	5.6	185 35 8		278 02										
Ethanol	į	46.08	27.2	4.15	844 RDM		067.03										
Fluorotrichloromethane	Ţ	137.38	0.76	12.38	18 04 6	1000	27 02										
Pentane]	72.15	3.29	6.5	77 98 S	SOR AR	116.97	* ****									
Prodane	j	44,09	111	3.97	263.00	67544 29300 50686 104446	394.63										
		Use this total for V															
TOTAL VOC (Ib/yr)	- 1	on Form 2.0 (Incl		and HAPs	fini	33,645.00		50,467.49									
FOTAL VOC (tons/yr)	[reporte	ed as VOCs)	1	F	16.82		25.2									

r	Collected Conf	trolled by CD 1	Collected Em	issions to CD 2	Collect	rolled by CD 2		
1	Emissions based on		bas	ed on		Emissions based on		
-	390,687 m3/yr		19,534,344	m3/yr	390,687 m3/yr			
H	330,001	Collected	(5,55,35+7	Collected		Collected		
ì	QNMQC	Controlled	ONMOC.	Uncontrolled	QNMOC	Controlled		
1	QNMOO	ib/yr	411,,,,,,,	lb/yr	21111100	lb/yr		
ŀ					 	7 71		
Į	0.34	4.10	17.07		0.34	4.10		
1	-		508.40		4			
ı	10.17 0.29		14.58		10.17 0.29			
ı	0.02		1.07		0.02			
ı			43.02	DOMESTIC STREET, MANUAL PROPERTY AND ASSESSMENT OF THE PROPERTY ASSESSMENT OF THE PROPERTY A				
ı	0.86		132.61		0.86			
ı	2.65				2.65			
ı	0.0002		0.01		0.00			
ļ		4,712.19) -	医别性 经银行	Libraria varia IIAB	4,712.19		
ı	Use to verify HAP	4,840.45	HAP total	11125.20	Use to verify HAP	4840.45		
1	emissions in Form		includes HC!		emissions in Form			
L	27 Column10	可以被害怕,但但		8.56	2T Column10	该四种的医性2.4.2		
ł								
١	- ند							
ı	0.79		39.46		0.79			
1	1.67		83.55		1.67	i		
1	0.14		7.11		0.14			
ı	0.13		6.40		0.13			
Ţ	4.50		225.05		4.50			
1	0.41		20.62		0.41			
Ţ	0.00		0.14	NAME OF TAXABLE PARTY.	0.00			
ı	0.35		17.42		0.35			
ı	0.18	1.60	8.89	7.00	0.18			
1	0.89		44.44		0.89	5.16		
-	0.15	1.98	7.47	12000	0.15	1.98		
١	3.28	31.37	163.90		3.28	31.37		
1	0.00	0,01	0.04		0.00	0.01		
ł	4.67	7 36.30	233.58		4.67	36,30		
1	5.22	29.38	260.96	新疆海 电明电	5.22	29.38		
١	5.04	32.77	252.07	THE REAL PROPERTY.	5.04	32.77		
1	1,33	12,01	66.48	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1.33	12.01		
1	2.01		100.26		2.01	23.74		
1	8.60		430.19		8.60	82.34		
	7.89	55.56	394.63		7.89	55.56		
Ĺ	27.94	231.94	1397.21	松野 16.96.86	27.94	231.94		
	Use to verify HAP	700 00		36 444 00	Use to verify HAP	778.00		
1	emissions in Form	728.29		36,414.28	emissions in Form	728.29		
1	2T Column10	0.36		18.21	2T Column10	0.36		
٢								
Ţ		· ·				ļ		
1	35.62	193.08	1781.18		35.62	193.08		
1	2.23	·	111.28		2.23	32.87		
1	3.58			0 00706	3.58	18.74		
1	5.56	1	278.02	1666.92	5.56	31.14		
I	19.34		967.03		19.34	80.26		
ı	0.54							
1	2.34		27.02		0.54	6.69		
l	2.34 7.89		116.97 394.63	760 20	2.34	15.21		
\vdash	Use to verify VOC	31.33	394.63	1,566,69	7.89	31.33		
	emissions in Form	1,009.35		50,467.49	Use to verify VOC	1,009.35		
1	2.0 Column10	3 0.50			emissions to Form	。		
L	2.0 COMMITTO	1.00,U.00		25.23	2.0 Column10	0.50		

Page 4

Form 2.T HAZARDOUS AIR POLLUTANT WORKSHEET

Facility Name			FIPs County N	ło.	Plant No.		Year of Data	·	1
BRIDGETON L	ANDFILL, LLC			189		0312	_	2004	,
Point No. Source Classification Code (SCC					CC)		Seg. No.		}
003				5-01-004-02					
					onicopiaci pe Jednosta di 191 Januari 1844				
				lleiteleitäitteleisittiet.			- L		
		sa dels sabbas el plat. O de la establicación de		under der der der der der der der der der			nese ni pa Contra Partilo si seatin		(500)
[1]	[2]	[3]	[4]	[5]	[6]	[7]	(8)	[9]	(10)
1.7	(-,] [7	'''	Uncontrolled	Uncontrolled	} ''']	(~)	Controlled	Controlled
		Amount	1	Emissions	Emissions]	,	Emissions	Emissions
		used or	Uncontrolled	Reported as	Reported as	HAP	Control	Reported as	Reported as
		Handled	amount	VOC or PM10	HAPs	Control	Efficiency	VOC or HAPs	HAPs
HAP Chemical	CAS Number	(lb/yr)	emitted (lb/yr)	(lb/yr)	(lb/yr)	Device(s)	(%)	(lb/yr)	(fb/yr)
111 Trichloroethane	71556	136.75	136.75	0	136.75	N/A	. 0	0	136.75
Dichloromethane	75092	2,592.84	2,592.84	0	2,592.84	N/A	0	0	2592.84
12 Dichloroethane	107062	86.68	86.68	0	86.68	N/A	0	0	86.68
Chloroform	67663	7.65	7.65	0	7.65	N/A	0	0	7.65
Chloromethane	74873	130.49	130.49	0	130.49	N/A	0	0	130.49
Perchloroethylene	127184	1,320.80	1,320.80	0	1,320.80	N/A	0	0	1320.80
Mercury	20133	0.13	0.13	0	0.13	N/A	0	0	0.13
1122 Tetrachloroethane	79345	398.05	398.05	398.05	0	N/A	0	398.05	C
11 Dichloroethane	75343	496.83	496.83	496.83	0	N/A	0	496.83	0
11 Dichloroethylene	75354	41.43	41.43	41.43	0	N/A	0	41.43	0
12 Dichloropropane	78875	43.43	43.43	43.43	0	N/A	0	43.43	0
Acrytonitrile	107131	717.15	717.15	717.15	0	N/A	0	717.15	0
Carbon disulfide	75150	94.30	94.30	94.30	0	N/A	0	94.30	0
Carbon tetrachloride	56235	1.31	1.31	1,31	0	N/A	0	1.31	0
Carbonyl sulfide	463581	62.83	62.83	62.83	0	N/A	0	62.83	0
Chlorobenzene	108907	60.08	60.08	60.08	0	N/A	0	60.08	0
Chloroethane	75003	172.13	172.13	172.13	0	N/A	0	172.13	<u>0</u>
Dichlorobenzene	106467	65.95	65,95	65.95	0)	N/A	0	65,95	. 0
Ethyl benzene	100414	1,045.66	1,045.66	1,045.66	0	N/A	0	1045.66	0
Ethylene dibromide	106934	0.40	0.40	0.40	0	N/A	0	0.40	0
		HAP Emission	on totals ==>	Sum (lb/yr)	Sum (lb/yr)				Sum (lb/yr)
				3,199.58	4,275.34			3,199.58	4,275.34
[11] Uncontrolled HAP Er					HAP Emission Fa	ector			
	Sum of Uncontr						1		
Enter the HAP emission	HAPs (total of c				Co.or BM10 from	block 11 abov	e as the LAC	Emerica Forton	on Form 3 D
First the LIVE SHIPSIC	on review for all [,	associated emissi		ve as use DAF	Emission ractor	011 FORM 2.0,
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Form 2.T HAZARDOUS AIR POLLUTANT WORKSHEET

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Xylene	108101	400.23	400.23	400.23		N/A	0	400.23	O
<u> </u>	79016	791.37	791.37	791.37	-	N/A	0	791.37	
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Bridgeton Landfill

11' X 40' ZTOF Enclosed Flare System

DESIGN CRITERIA

Flare Gas Stream

Type:

landfill

Composition:

50% CH4 (maximum) 50% CO2, air, inerts

Lower Heating Value:

455 BTU/SCF

Temperature:

100 °F

Flow Rate:

3500 SCFM (maximum)

Waste Heat Release:

95,623,000 BTU/hr (maximum)

NOTE: The minimum flow rate is limited by the particular blower selection and configuration. This flare is capable of potentially achieving a 10:1 turndown based on heat release.

Mechanical

Design Wind Speed:

110 mph

Ambient Temperature:

-20 °F to 120 °F

Electrical Area Classification:

non-hazardous

Elevation:

sea level

Process

Smokeless Capacity:

100%

Operating Temperature:

1400 °F to 1800 °F (2000 °F shutdown)

Retention Time:

0.7 seconds at 1800 °F (minimum)

Flare Inlet Pressure:

5" H₂O (maximum, excluding flame arrester)

Ambient Pressure:

14.7 psia

NOTE: Low methane concentrations may require auxiliary fuel to initiate combustion and maintain temperature.

Blower

Capacity:

3500 SCFM (maximum each)

Quantity:

One

Pressure Requirement:

-40" w.c. blower suction (maximum) +10" w.c. blower discharge (maximum)

Utilities

Pilot Gas (intermittent):

22 SCFH of propane at 7-10 psig

Electricity:

460 V, 3 ph, 60 Hz for blower control, if blower is

provided by John Zink, otherwise 120 V, single ph,

60 H2 is only for flare controls

Expected Flue Gas

Operating Temperature	1600°F	1800°F
CO ₂ Volume %	7.0	8.1
H ₂ O Volume %	8.2	9.2
N ₂ Volume %	72.6	71.8
O ₂ Volume %	12.2	10.9

Expected Emission Range (Design Flow)(1)

Operating Temperature	1600°F	1800°F
Overall Destruction Efficiency ⁽²⁾	98%	99%
NOx, lb / MMBTU ⁽³⁾	0,06	0.08
CO, lb / MMBTU ⁽⁴⁾	0.20	0.15

(1) Expected emission rates at lower operating temperatures are available upon request.

(3) Excludes NOx from fixed nitrogen.

NOTE: Expected emissions are based on field tests of operating units and the higher heating value (HHV) of the landfill gas. Destruction efficiency, NOx, and CO emissions shown are valid for combustion of landfill gas only. These expected emissions are the same for the simultaneous combustion of landfill gas and condensate injection within the specified design range for typical municipal solid waste condensate. A condensate composition analysis is required to verify specific expected emission. Expected emissions are not guaranteed unless expressly stated in this proposal.

⁽²⁾ Typical sulphur containing compounds are expected to have greater than 98% oxidation efficiency.

⁽⁴⁾ Excludes CO contribution present in landfill gas.

Allied Waste John Zink, Proposal BP 36279

SCOPE OF SUPPLY

The following scope of supply is for the base system only. Please refer to sections II and III for options.

- One (1) 11'-0" diameter x 50'-0" overall height, A-36 carbon steel flare stack enclosure.
- Two (2) 1" layers of A.P. Green (or equal) ceramic fiber refractory on Inconel pins and keepers providing optimal temperature protection. The 1" surface layer of 8 lb density refractory (2400 °F surface temperature rating) is overlapped horizontally for additional protection. This layer is backed with an additional 1" layer of 6 lb density refractory (2400 °F surface rating temperature).
- One (1) burner manifold assembly with 14" diameter flanged inlet connection.
- Six (6) V-MixTM Biogas Burners with stainless steel anti-flashback tips for high temperature corrosion resistance and maximum flame stability through the full range of design flow rates.
- One (1) Tru-LiteTM ignitor assembly for use during start-up cycles. This externally mounted pilot provides simple operation and can be removed for maintenance without entering the stack.
- Four (4) bolted blade combustion air dampers with opposed blade design, providing air turndown control. Galvanized finish and stainless steel press-fit bearings ensure smooth, long term operation.
 A special, proprietary lower burner chamber design minimizes direct radiation on the damper for maximum service life.
- Two (2) 4" diameter NPT couplings with plug provided as sample ports at 90° apart located one-half stack diameter from the flare top for accurate emission testing.

NOTE: These ports can be accessed by use of a temporary device such as power-lift vehicle or permanent ladder and platform equipment (refer to the optional equipment section for ladder and platform selection).

- One (1) stainless steel rain cap consisting of overlapping tabs to provide weather protection at the refractory and flare shell interface.
- Four (4) thermocouple connections at various elevations for temperature monitoring.
- Exterior protection using SSPC-SP-6 sandblast and Sherwin Williams Zinc Clad II primer coating system, gray-green color, 4 mils DFT, for superior corrosion protection at shell temperatures to
- 750 °F.
- One (1) AISC designed, continuous base plate for high wind stability.
- Two (2) lifting lugs to assist in erection.
- Thermocouple conduit mounting brackets.

Item 2, Automatic Ignition and Control Station

Control Station Assembly

- One (1) self-supporting steel rack with electrical panels attached to the front side and pilot gas piping and instrumentation attached to the rear side.
- One (1) operator interface touch screen display for all setpoint changes, status, alarms, and shut down indications.
- One (1) weatherproof Flare Control Panel with a programmable logic controller for safe, overall system operation and control.
- One (1) flame scanner relay.
- One (1) 3/4 HP purge air blower motor starter.

- One (1) Pilot Gas Control System including a pressure regulator, fail-closed shutdown valve, manual block valve, and pressure indicator.
- The control station assembly is completely piped and wired in a *UL* approved shop and functionally tested simulating actual operations.

Stack Mounted Controls

- Four (4) combustion air dampers to control the operating temperature. Two dampers with automatically controlled louvers provided as part of the automatic temperature control feature. The remaining dampers utilize manually positioned louvers.
- One (1) Ignition Panel Assembly including a transformer, pilot spark electrode, and ignition wire. The enclosure is stack mounted for easy access to the pilot assembly.
- One (1) self-checking, ultraviolet flame scanner.
- One (1) purge air blower.
- One (1) high temperature shutdown thermocouple.
- Three (3) temperature monitoring thermocouples with location dependent on specific flow conditions.

Miscellaneous Accessories

- Three (3) operating manuals with essential operating instructions, appropriate vendor literature on instrumentation, and drawings combined in a three ring binder.
- 450 ft of thermocouple extension wire.
- One (1) gallon of field touch-up paint.

Bridgeton Landfill Authority, LLC GCCS Revisions - New Flare(s) Air Construction Permit Determination PROPOSED FLARES PTE CALCULATIONS and SCREEN ANALYSIS

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ÇO	0.15	29.45	129.00	28.69
NO _x	0.08	15.71	68.80	15.30
PM ₁₀	0.042	8.25	36.12	8.03

		HERECULES CO.		
3.6216	12.192	13,386,213	10,000	8 hour
1.9315	12.192	13,386,213	100 €	annual
1.0141	12.192	13,386,213	150	24 hour

er carso givalandap, gardleded Volgelijassandenisma	
Maximum Flow Rate (SCFM)	7000
Maximum Hourly Design Rate (MMBtu/hr)	196.34
Annual Hours of Operation	8760
Annual Waste Heat Release (MMBtu/yr)	1,719,967

Methane Contribution to GCCS	50%
GCCS inert air - non regulated	50%
Flare Heating Value (Btu/SCF)	467.48

er inwellentam Felmekette	
Heating Value (Btu	/SCF)
H₂O Vapor Saturated	1003.40
Dry	1020.00
Methane (CH ₄) Com	ponent
Mol%	93.18%
Mass%	86.99%

	itematers and the
Maximum Flow Rate (SCFM)	7000
Maximum Hourly Design Rate (MMBtu/hr)	191.24
Annual Hours of Operation	8760
Annual Waste Heat Release (MMBtu/yr)	1,675,262

	iller from the constant of
Averaging Period	EPA Multipling Factor
8 hour	0.7
24 hour	0.4
annual	0.08

• NOTE: Federal standard for NOx pollutant is specifically for NO₂. Most of the emission from combustion sources are emitted in the form of nitric oxide (NO), not NO₂. While some of the NO is converted to NO₂ by thermal reaction casued by relatively high temperatures during the combustion process, it is usually assumed that about 90% of the NOx is emitted to the atmosphere as NO where it can be transformed to NO₂. When the plume mixes with ambient air, atmospheric chemical reactions occur. For example, NO reacts with ozone (O₃) to form NO₂. This is usually the primary mechanism for converting NO to NO₂ in rural areas such as the location for the Butler County Landfill. In urban areas, other reactions such as those with hydrocarbon oxidation products (e.g. HO₂) and RO₂ radicals can be important. In either event, U.S. EPA recommends using a national default NO₂:NOx ratio of 0.75 - this is only valid for "screening" models, other methods are allowed by EPA but these are for "refined"-level modeling.

NOTE: emission calculations based on flare combustion and does not consider, non regulated, inert constitutents.

Bridgeton Landfill Authority, LLC GCCS Revisions - New Flare(s) Air Construction Permit Determination EXISTING FLARE SYSTEMS PTE and SCREEN ANALYSIS RESULTS

		e Erapeen Leges lege	Anverson	usiamentijes (1467) 1565. stalksteats
CO	0.37	51.89	227.28	45.45
NO _x	0.068	9.54	41.77	8.35
PM ₁₀	0.042	5.89	25.80	5.16

5.7386 1.0547	9,144	8,599,123 8,599,123	10,000	8 hour annual
F. 7296		0.500.133	10,000	

a alikuvinas erebu antellangen bilad. Palpadalas sadabastikan	in and 1
Maximum Flow Rate (SCFM)	5000
Maximum Hourly Design Rate (MMBtu/hr)	140.25
Annual Hours of Operation	8760
Annual Waste Heat Release (MMBtwyr)	1,228,548

建物性的效应的法律的不由现象的的效性的原 位。	
Maximum Flow Rate (SCFM)	4500
Maximum Hourly Design Rate (MMBtu/hr)	122.85
Annual Hours of Operation	8760
Annual Waste Heat Release (MMBtu/yr)	1,076,166

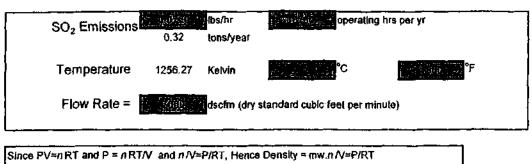
file the section of t	
Methane Contribution to GCCS	50%
GCCS inert air - non regulated	50%
Flare Heating Value (Btu/SCF)	467.48

STREET THE PERSON NO.	
Averaging Period	EPA Multipling Facto
8 hour	0.7
24 hour	0.4
annual	0.08

GII E		
Heating Value (Btu/SCF)		
1003.40		
1020.00		
Methane (CH ₄) Component		
93.18%		
86.99%		

• NOTE: Federal standard for NOx pollutant is specifically for NO₂. Most of the emission from combustion sources are emitted in the form of nitric oxide (NO), not NO₂. While some of the NO is converted to NO₂ by thermal reaction casued by relatively high temperatures during the combustion process, it is usually assumed that about 90% of the NOx is emitted to the atmosphere as NO where it can be transformed to NO₂. When the plume mixes with ambient air, atmospheric chemical reactions occur. For example, NO reacts with ozone (O₃) to form NO₂. This is usually the primary mechanism for converting NO to NO₂ in rural areas such as the location for the Buller County Landfill. In urban areas, other reactions such as those with hydrocarbon oxidation products (e.g. HO₂) and RO₂ radicals can be important. In either event, U.S. EPA recommends using a national default NO₂:NO₃ ratio of 0.75 - this is only valid for "screening" models, other methods are allowed by EPA but these are for "refined"-level modeling.

Bridgeton Landfill Auth0rity, LLC GCCS Revisions - Proposed Flare(s) Air Construction Permit Determination SO₂ Calculations



0.0353	cf/i	(cubic feet per liter)
907184.74	g/ton	(grams per ton)
525600	min/year	(minutes per year)

Since PV≍n R	fand P = nR	T/V and n/V=P/RT, Hence Density = mw.n/V=P/RT
\$O ₂ mw = [64	g/mol (grams per mole)
R= [0.08206	I-alm/K-mol (universal gas constant)
P≂	1	atm

then	(molar mass)	P/RT = 0.0097		(moles per liter)
		density = 0.6208	g/1	(grams per liter)
	in	tons /cf = 1.94E-05	ton/cf	(tons per cubic feel)
	volun	ne of SO ₂ = 0.0309	cf/min	_(cubic feet per minute)





Computations for compliance with 10 CSR 10-6.260 "Missouri Air Sulfur Rule" Regulatory threshold = 500 ppm_{vd}

Bob Holden, Governor - Stephen M. Manfood, Director

TOF NATURAL RESOURCES

-DIVISION OF ENVIRONMENTAL QUALITY P.O. Box 176 Jefferson City, MO 65102-0176

FFB 2 3 2001

Mr. Gregory R. Ribaudo Bridgeton Landfill, LLC 13570 St. Charles Rock Road Bridgeton, MO 63044

Re:

Bridgeton Landfill, LLC

Earth City, MO 63045, Permit Number: 092001009

Dear Mr. Ribaudo:

Enclosed with this letter is your operating permit. Please review this document carefully. Operation of your installation in accordance with the rules and regulations cited in this document is necessary for continued compliance.

If you have any questions or need additional information regarding this permit, please contact the Air Pollution Control Program (APCP) at (573) 751-4817, or you may write to the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Randy E Raymond Permit Section Chief

RER:ayc

Enclosures

c: US EPA Region VII

St. Louis Regional Office PATs File: 2000-03-035

Bob Holden. Governor . Stephen M. Makfood, Director

T OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY P.O. Box 176 Jefferson City, MO 65102-0176

PERMIT TO OPERATE

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to operate the air contaminant source(s) described below, in accordance with the laws, rules, and conditions set forth here in.

Operating Permit Number: 0P2001009

Expiration Date: February 7, 2005
Project Number: 2000-03-035

Installation Name and Mailing Address:

Bridgeton Landfill, LLC 13570 St. Charles Rock Road Bridgeton, MO 63044 Saint Louis County

Parent Company's Name and Address

Bridgeton Landfill, LLC 13570 St. Charles Rock Road Bridgeton, MO 63044

Bridgeton Landfill, LLC is a solid waste landfill.

FEB 7 2001

Effective Date

Director of Designee

Department of Natural Resources

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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

Bridgeton Landfill, LLC is a solid waste landfill. The landfill has a design capacity of approximately 10 million-Mg of waste. The facility has both an active and a passive gas recovery system. The active portion of the system has an enclosed ground flare and two (2) portable flares located over active gas wells. The passive system consists of four (4) open flares, which are portable. The permitted facility has a design capacity greater than one (1.0) million cubic meters and has an uncontrolled Non-Methane Organic Compounds (NMOC) emission rate of greater than twenty-five (25) megagrams per year. The permittee operates both an active gas collection system and a passive gas collection system.

EMISSION UNITS WITH LIMITATIONS

The following list provides a description of the equipment at this installation, which emit air pollutants and which are identified as having unit-specific emission limitations.

Emission Unit #	Description of Emission Unit		
EU0020	Two Skid Flares	 	•
EU0080	Ground Flare		

EMISSION UNITS WITHOUT LIMITATIONS

The following list provides a description of the equipment that does not have unit specific limitations at the time of permit issuance.

Description of Emission Source

Diesel Fuel Storage (1000 gallons mobile field tank, 1981; 4000 gallons stationary tank, April 1994)

Borrow Area Haul Road Borrow Area Stock Pile Borrow Area Stock Pile Haul Road Haul Road, Packers Haul Road, Trailers

DOCUMENTS INCORPORATED BY REFERENCE

These documents have been incorporated by reference into this permit.

1) None.

II. Plant Wide Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements.

Permit Condition PW001

10 CSR 10-6.170

Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin

Emission Limitation:

No person may cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive particulate matter to go beyond the premises of origin in quantities that the particulate matter:

- · Remains visible in the ambient air beyond the property line of origin; or
- May be found on surfaces beyond the property line of origin.

The nature or origin of the particulate matter on these surfaces shall be determined to a reasonable degree by a technique proven to be accurate and approved by the Director.

Monitoring:

The permittee shall conduct inspections of its installation sufficient to determine compliance with this regulation. If a violation of this regulation is discovered, the source shall undertake corrective action to eliminate the violation.

The following monitoring schedule must be maintained:

Weekly observations shall be conducted for a minimum of eight (8) consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-

- Observations must be made once every two weeks for a period of eight (8)
 weeks. If a violation is noted, monitoring reverts to weekly. Should no violation
 of this regulation be observed during this period then-
- Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.

If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner to the initial monitoring frequency.

Record keeping:

A log must be maintained noting the following:

- Whether air emissions (except water vapor) remain visible in the ambient air beyond the property line of origin.
- · Whether the visible emissions were normal for the installation.
- Equipment malfunctions that could cause an exceedance of 10 CSR 10-6.170.
- Any violations of 10 CSR 10-6.170 and any corrective actions undertaken to correct the violation.

Attachment A contains a log including these record keeping requirements. This log, or an equivalent created by the permittee, must be used to certify compliance with this requirement.

Reporting:

The permittee shall report to the Air Pollution Control Section of the SLCDOH, 111 South Meramec, Clayton, MO, 63105 and the Air Pollution Control Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.

Permit Condition PW002

10 CSR 10-6.250

Asbestos Abatement Projects - Certification, Accreditation, and Business Exemption Requirements

Emission Limitation:

The permittee shall conduct all asbestos abatement projects within the procedures established for certification and accreditation by 10 CSR 10-6.250.

- An individual must receive certification from the department before that
 individual participates in an asbestos abatement project operating in
 Missouri according to Section (3). This certification is annually renewable.
 Certification as an AHERA inspector, AHERA management planner and
 AHERA project designer apply to AHERA-related projects.
- To be a training provider for the purpose of this rule a school shall apply for accreditation to the department and comply with the United States Environmental Protection Agency AHERA Model Accreditation plan 40 CFR part 763 Appendix C, subpart E. Details of the requirements for accreditation are found in Section (4).

Monitoring:

Any appropriate monitoring to demonstrate compliance with Certification and Accreditation stándards.

Record keeping:

Any appropriate record keeping to demonstrate compliance with Certification and Accreditation standards.

Reporting:

Any appropriate reporting to demonstrate compliance with Certification and Accreditation standards.

Permit Condition PW003

10 CSR 10-6.080

Emission Standards for Hazardous Air Pollutants

40 CFR Part 61 Subpart M

National Emission Standard for Asbestos

Emission Limitation:

The permittee shall follow the procedures and requirements of 40 CFR Part 61, Subpart M for any activities occurring at this installation which would be subject to provisions for 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos.

Monitoring:

Any appropriate monitoring to demonstrate compliance with registration, certification, notification, and Abatement Procedures and Practices standards as specified in 40 CFR Part 61, Subpart M.

Record keeping:

Any appropriate record keeping as specified in 40 CFR Part 61, Subpart M.

Reporting:

Any appropriate reporting as specified in 40 CFR Part 61, Subpart M.

Permit Condition PW004

10 CSR 10-5.040

Use of Hand-fired Equipment Prohibited

Emission Limitation:

The permittee shall not operate any hand-fired fuel burning equipment.

Monitorina:

None.

Record keeping:

None.

Reporting:

The permittee shall report to the Air Pollution Control Section of the SLCDOH, 111 South Meramec, Clayton, MO 63105, no later than ten (10) days after any exceedance of any of the terms imposed by this regulation.

Permit Condition PW005

10 CSR 10-5.180

Emission of Visible Air Contaminants From Internal Combustion Engine

Emission Limitation:

No person shall cause or permit the emission of visible air contaminants from any internal combustion engine for more than ten (10) consecutive seconds at any one (1) time.

Monitoring:

None

Record keeping:

None

Reporting:

The permittee shall report to the Air Poliution Control Section of the SLCDOH, 111 South Meramec, Clayton, MO, 63105 no later than ten (10) days after any exceedance of 10 CSR 10-5.050.

Permit Condition PW006

10 CSR 10-5,490

Municipal Solid Waste Landfills

Emission Limitation:

The permittee shall operate:

- 1. The active collection system shall be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control; collect gas from each area cell or group of cells in the landfill in which the initial solid waste has been placed for a period of five (5) years or more, if active, or two (2) years or more, if closed or at final grade; collect gas at a sufficient extraction rate; and be designed to minimize offsite migration of subsurface gas.
- 2. The passive collection system shall be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control; collect gas from each area cell or group of cells in the landfill in which the initial solid waste has been placed for a period of five (5) years or more, if active, or two (2) years or more, if closed or at final grade; be designed to minimize offsite migration of subsurface gas; be installed with liners on the bottom and all sides in all areas in which gas is to be collected.
- 3. The operator of the gas collection and control system shall operate the collection system with negative pressure at each well head; operate each interior well head in the collection system with a landfill gas temperature less than fifty-five degrees Celsius and with either a nitrogen level less than twenty percent (20%) or an oxygen level less than five percent (5%); and operate the collection system so that the methane concentration is less than five hundred (500) parts per million above background at the surface of the landfill.
- 4. Route all the collected gas to a control system as described in required collection and control system design plan.
- 5. The collection and control system may be capped or removed provided these conditions are met the landfill shall be no longer accepting solid waste and be permanently closed; the collection and control system has been in operation a minimum of fifteen (15) years; and the calculated NMOC gas produced by the landfill is less then twenty-five (25) megagrams per year on three (3) successive test dates.
- 6. Test in accordance with 10 CSR 10-5.249(4)
- 7. Any reading of five hundred parts per million (500 PPM) or more above background at any location shall be recorded as an exceedance.

Monitoring:

- Surface concentrations of methane along the entire perimeter of the collection area and in a serpentine pattern every thirty (30) meters for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specification provided in Method 21 of Appendix A, 40 CFR part 60, except that "methane" shall replace all referenced to VOC.
- 2. The permittee shall install a sampling port and a thermometer or other temperature measuring device at each wellhead and measure the gauge pressure in the gas collection header on a monthly basis, monitor the nitrogen or oxygen concentration in the landfill gas on a monthly basis and monitor the temperature of the landfill gas on a monthly basis.
- 3. When an enclosed combustion device is used the permittee shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment: a temperature monitoring device equipped with a continuous recorder and having an accuracy or +/- 1 percent of the temperature being measured expressed in degrees Celsius or +/- 0.5 degrees Celsius whichever is greater; and a gas flow rate measuring device that provides a measurement of gas flow to or bypass of the control device, shall either install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to control device at least every fifteen (15) minutes; or secure the bypass line valve in the closed position with a car-seal or a lock and key type configuration.
- 4. When an open flare combustion device is used the permittee shall calibrate, maintain, and operate according to the manufacturer's specifications the following equipment: a heat sensing device at the pilot light or the flame itself to indicate the continuous presence of a flame; and a device that records flow to or bypass of the flare. The permittee shall either install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every fifteen (15) minutes; or secure the bypass line valve in the closed position with a car-seal or a lock and key type configuration.

Record keeping:

The permittee keep up to date records, readily accessible on-site records of maximum design capacity; control equipment compliance monitoring; a plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector; and collection and control system exceedances of the operation standards and the location of each exceedance (Attachment A).

Reporting:

- The permittee shall report to the Air Pollution Control Section of the SLCDOH, 111 S. Meramec Ave., Clayton, MO 63105 and the Air Pollution Control Enforcement Section, P.O. Box 176, Jefferson City, MO 65101, no later than ten (10) days after any exceedance of any of the terms imposed by this regulation.
- 2. Submit an initial design capacity report and an NMOC emission rate report within 90 days of the rule effective date.
- 3. Submit an amended design capacity report providing notification of any increase in the design capacity of the landfill.
- 4. Submit a collection and control system design plan prepared by a professional engineer within one (1) year of the NMOC emission rate report.
- 5. Submit closure report within thirty (30) days of the date the landfill ceases accepting solid waste.
- 6. Submit an equipment removal report thirty (30) days prior to removal or cessation of operation of the control equipment.
- 7. The permittee using an active collection system designed shall submit an annual report of recorded information in paragraphs (7)(H) 1-6 of this rule, within one hundred and eighty (180) days of installation an start-up of the gas collection and control system and shall be included in the initial performance test report.
- 8. The permittee submit with the initial performance test report the information in paragraph (7)(1) 1-6 of this rule.

Permit Condition PW007

40 CFR Part 60 Subpart CC

Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills

Emission Limitation:

The permittee shall provide the calculation of the landfill NMOC emission rate to determinate whether the landfill meets the operational standards, the compliance provisions and the monitoring provisions as specified in 40 CFR Part 60 Subpart WWW.

Monitorina:

None

Record keeping:

 The permittee shall keep for at least 5 years up-to-date, really accessible, on site records of the maximum design capacity, the current amount of solid waste in place, and the year-to-year waste acceptance rate.

Reporting:

The permittee shall report to the Air Pollution Control Section of the SLCDOH, 111 South Meramec, Clayton, MO, 63105 no later than the earliest day from the following:

- 1. 90 days of the issuance of construction or operation permit; or
- 2. 30 days of the date of construction or reconstruction; or
- 3. 30 days of the initial acceptance of solid waste.

III. Emission Unit Specific Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements.

EU0020 Skid Flares

General Description:	Landfill Gas Collection System, 1000 SCFM
Manufacturer/Model #:	IT-McGill 9x40W/5, 1994

Permit Condition EU0020-001

10 CSR 10-5.090

Restriction of Emission of Visible Air Contaminants

Emission Limitation:

No person may discharge into the ambient air from any single source of emission whatsoever, any air contaminant:

- of a shade or density equal to or darker than that designated as No. 2 on the Ringlemann Chart (40% opacity) for existing installations, other than incinerators, emitting 25 lb/hr or less of particulate matter or No. 1 on the Ringlemann Chart (20% opacity) for all others; or
- of an opacity as to obscure an observer's view to a degree equal to or greater than does smoke designated as No. 2 on the Ringlemann Chart (40% opacity) for existing installations, other than incinerators, emitting 25 lb/hr or less of particulate matter or No. 1 on the Ringlemann Chart (20% opacity) for all others.

Monitoring:

- The permittee shall conduct opacity readings on this emission unit using the procedures contained in USEPA Test Method 22. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed by a Method 22 reading, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- The following monitoring schedule must be maintained:
- 1. Weekly observations shall be conducted for a minimum of eight (8) consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
- 2. Observations must be made once every two weeks for a period of eight (8) weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
- 3. Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
- If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.
- The permittee shall conduct an annual opacity measurement on the emission unit by USEPA Test Method 9 with a certified Method 9 observer.

Record keeping:

- The permittee shall maintain records of all Method 22 results (see Attachments C&D), noting:
- 1. Whether any air emissions (except for water vapor) were visible from the emission units,
- 2. All emission units from which visible emissions occurred, and
- 3. Whether the visible emissions were normal for the process.
- The permittee shall maintain records of any equipment malfunctions.
- The permittee shall maintain records of the annual USEPA Method 9 opacity test and any other Method 9 test performed in accordance with this permit condition.

Reporting:

The permittee shall report to the Air Pollution Control Section of the SLCDOH, 111 South Meramec, Clayton, MO, 63105 no later than ten (10) days after any exceedance of the opacity limit established by 10 CSR 10-5.090, or any malfunction which could cause an opacity exceedance.

EU0080 Ground Flares

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			 	 _	_		

General Description:	Landfill Gas Collection System, 2500 SCFM
	IT-McGill 9x40W/6, 1993
EIQ Reference # (1998):	EP#8

Permit Condition EU0080-001

10 CSR 10-5.090

Restriction of Emission of Visible Air Contaminants

Emission Limitation:

No person may discharge into the ambient air from any single source of emission whatsoever, any air contaminant:

- of a shade or density equal to or darker than that designated as No. 2 on the Ringlemann Chart (40% opacity) for existing installations, other than incinerators, emitting 25 lb/hr or less of particulate matter or No. 1 on the Ringlemann Chart (20% opacity) for all others; or
- of an opacity as to obscure an observer's view to a degree equal to or greater than does smoke designated as No. 2 on the Ringlemann Chart (40% opacity) for existing installations, other than incinerators, emitting 25 lb/hr or less of particulate matter or No. 1 on the Ringlemann Chart (20% opacity) for all others.

Monitoring:

- The permittee shall conduct opacity readings on this emission unit using the procedures contained in USEPA Test Method 22. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed by a Method 22 reading, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- The following monitoring schedule must be maintained:
- 1. Weekly observations shall be conducted for a minimum of eight (8) consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
- 2. Observations must be made once every two weeks for a period of eight (8) weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
- 3. Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
- If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.
- The permittee shall conduct an annual opacity measurement on the emission unit by USEPA Test Method 9 with a certified Method 9 observer.

Record keeping:

- The permittee shall maintain records of all Method 22 results (see Attachments C&D), noting:
- 4. Whether any air emissions (except for water vapor) were visible from the emission units.
- 5. All emission units from which visible emissions occurred, and
- 6. Whether the visible emissions were normal for the process.
- The permittee shall maintain records of any equipment malfunctions.
- The permittee shall maintain records of the annual USEPA Method 9 opacity test and any other Method 9 test performed in accordance with this permit condition.

Reporting:

The permittee shall report to the Air Pollution Control Section of the SLCDOH, 111 South Meramec, Clayton, MO, 63105 no later than ten (10) days after any exceedance of the opacity limit established by 10 CSR 10-5.090, or any malfunction which could cause an opacity exceedance.

IV. Core Permit Requirements

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the St. Louis County Air Pollution Control Code, the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements.

ST. LOUIS COUNTY AIR POLLUTION CONTROL CODE REQUIEREREMENTS

The following requirements are none Federally enforceable and are only enforced by the St. Louis County Air Pollution Control Program.

- 1. The St. Louis County Air Pollution Control Code, Section 612.040, Air Quality Standards and Air Pollution Control Regulations
 - (1) Emission Standards: Saint Louis County Air Pollution Control shall enforce Missouri Code of State Regulations as adopted and promulgate by the Air Conservation Commission of the State of Missouri consisting of Title 10, Division 10, Chapter 5 and 6.
 - (2) Record Keeping Requirements: None
 - (3) Monitoring Requirements: None.
 - (4) Reporting Requirements: None.
- 2. The St. Louis County Air Pollution Control Code, Section 612.100, Emergency Abatement of Violation
 - (1) Emission Standards: By written approval of the County Executive, any facility indirectly or directly discharge any air contaminant in violation of The St. Louis County Air Pollution Control Code where it is the opinion of the Director that the discharge creates an emergency which requires immediate action to protect the public health, shall order the person in writing to discontinue immediately.
 - (2) Record Keeping Requirements: None.
 - (3) Monitoring Requirements: None.
 - (4) Reporting Requirements: None.
- 3. The St. Louis County Air Pollution Control Code, Section 612.110, Permits Required
 - (1) Emission Standards: The Permittee shall obtain St. Louis County Department of Health (DOH) operating permits for its installation. The Permittee shall not commence construction, modification, or major modification of any installation subject to this rule without obtaining a permit from St. Louis County DOH.

- (2) Record Keeping Requirements: None.
- (3) Monitoring Requirements: None.
- (4) Reporting Requirements: None.
- 4. The St. Louis County Air Pollution Control Code, Section 612.120, Permits to be Visibly Affixed or Placed
 - (1) Emission Standards: The Permittee shall Visibly affix St. Louis County DOH Permit on or near permitted equipment.
 - (2) Record Keeping Requirements: None.
 - (3) Monitoring Requirements: Visual inspection performed during periodic St. Louis County inspections.
 - (4) Reporting Requirements: None.
- 5. The St. Louis County Air Pollution Control Code, Section 612.200, Testing Prior to Granting of Operating Permit
 - (1) Emission Standards: Before an authority to construct or permit to operate is granted, the Director may require the applicant to conduct tests to determine the kind or amount of the air contaminant emitted from the equipment. Such tests shall be conducted, reviewed and certified by a licensed engineer. The permittee shall notify the County of the time and place of testing for the purpose of witnessing the test.
 - (2) Record Keeping Requirements: Records shall be kept during testing as approved in a test protocol submitted to the County prior to testing.
 - (3) Monitoring Requirements: Monitoring during testing shall be as approved in a test protocol submitted to the County prior to testing.
 - (4) Reporting Requirements: The permittee shall report to the Air Pollution Control Section of the SLCDOH, 111 South Meramec, Clayton, MO 63105, no later than ten (10) days after any exceedance of any of the terms imposed by this regulation, or any condition which could possibly cause an exceedance of this regulation.
- 6. The St. Louis County Air Pollution Control Code, Section 612.220, Suspension or Revocation of Permits
 - (1) Emission Standards: The Director may suspend or revoke a permit to operate or authority to construct for willful or continued violation of The St. Louis County Air Pollution Control Code
 - (2) Record Keeping Requirements: None.
 - (3) Monitoring Requirements: None.
 - (4) Reporting Requirements: None.

- 7. The St. Louis County Air Pollution Control Code, Section 612.260, Schedules
 - (1) Emission Standards: The Permittee shall pay St. Louis County DOH Construction Permit fees when applicable and annual Operating Permit fees in accordance with the rule.
 - (2) Record Keeping Requirements: None.
 - (3) Monitoring Requirements: None.
 - (4) Reporting Requirements: None.
- 8. The St. Louis County Air Pollution Control Code, Section 612.280, Testing by Order of the Board
 - (1) Emission Standards: If any article, machine, equipment or other contrivance is in violation of The St. Louis County Air Pollution Control Code, the Director may file with the Board for its approval an order directing the permittee of such equipment to conduct such tests as are necessary in the opinion of the Director and approved by the Board to determine whether the equipment is in violation of this Code.

(2) Record Keeping Requirements: None.

- (3) Monitoring Requirements: The entire test results shall be reviewed and certified by an engineer licensed under Chapter 327, R.S.Mo 1959. The engineer shall be selected by the permittee and approved by the Board.
- (4) Reporting Requirements: The permittee shall give at least seven (7) days notice prior to the commencement of the test. The permittee shall report to the Air Pollution Control Section of the SLCDOH, 111 South Meramec, Clayton, MO 63105.
- 9. The St. Louis County Air Pollution Control Code, Section 612.290, Right of Entry; Inspections; Samples
 - (1) Emission Standards: The Permittee shall allow the Director or His agent to enter at all times with reasonable notice, inspect any equipment, control apparatus, fuel, matter or things which affect or may affect the emission of air contaminants, inspect any records relating to the use of any equipment or control apparatus which affect or may affect the emission of air contaminants, and sample any equipment, control apparatus, fuel, matter or things which affect or may affect the emission of air contaminants.
 - (2) Record Keeping Requirements: None.
 - (3) Monitoring Requirements: None.
 - (4) Reporting Requirements: None.

- 10. The St. Louis County Air Pollution Control Code, Section 612.310, Upset Conditions, Breakdown or Scheduled Maintenance
 - (1) Emission Standards: None.
 - (2) Record Keeping Requirements: None.
 - (3) Monitoring Requirements: None.
 - (4) Reporting Requirements: The permittee shall report to the Air Pollution Control Section of the SLCDOH, 111 South Meramec, Clayton, MO 63105 within 24 hours of occurrence of any unavoidable upset in or breakdown of equipment and in case of shutdown for necessary scheduled maintenance, the intent to be shutdown shall be reported to Air Pollution Control Section 24 hours prior to shutdown.
- 11. The St. Louis County Air Pollution Control Code, Section 612.340, Air Pollution Nuisances Prohibited
 - (1) Emission Standards: It is unlawful for the Permittee to cause of such quantities of soot, cinders, noxious acids, fumes and gases or other particulate matter from whatever source in such place or matter as to be detrimental to any person or the public or to endanger the health, comfort and safety of any person or the public, injury or damage to property or business.
 - (2) Record Keeping Requirements: None.
 - (3) Monitoring Requirements: None.
 - (4) Reporting Requirements: None.
- 12. The St. Louis County Air Pollution Control Code, Section 612.380, Interfering with or Obstructing Division Personnel
 - (1) Emission Standards: No Person shall hinder, resist, interfere with or obstruct the Director or any Division employee in carrying out any duty for the Director or the Board.
 - (2) Record Keeping Requirements: None.
 - (3) Monitoring Requirements: None.
 - (4) Reporting Requirements: None.

The following requirements are none Federally enforceable and are only enforced by the St. Louis County Air Pollution Control Program.

- 13. 10 CSR 10-6.050, Start-up, Shutdown and Malfunction Conditions

 The permittee shall submit the following information to the director not later than fifteen (15) days after receipt of the notice of excess emissions.
 - (a.) Name and location of installation:
 - (b.) Name and telephone number of person responsible for the installation;
 - (c.) The identity of the equipment causing the excess emissions;
 - (d.) The time and duration of the period of excess emissions;

- (e.) The cause of the excess emissions;
- (f.) The type of air contaminant involved:
- (g.) A best estimate of the magnitude of the excess emissions expressed in the units of the applicable emission control regulation and the operating data and calculations used in estimating the magnitude;
- (h.) The measures taken to mitigate the extent and duration of the excess emissions;
- (i.) The measures taken to remedy the situation which caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
- 14. 10 CSR 10-6.060, Construction Permits Required

The permittee shall not commence construction, modification, or major modification of any installation subject to this rule, begin operation after that construction, modification, or major modification, or begin operation of any installation which has been shut down longer than five (5) years without first obtaining a permit from the permitting authority.

- 15. 10 CSR 10-6.070, New Source Performance Regulations

 The permittee shall apply the more restrictive of each emission limitation and more accurate test procedure when emission limitation, test procedure or other requirements found in both subsection (1)(A) of this role.
- 16. 10 CSR 10-6.110, Submission of Emission Data, Emission Fees and Process Information

The permittee shall complete and submit an Emission Inventory Questionnaire (EIQ) in accordance with the requirements outlined in this rule.

17. 10 CSR 10-6.130, Controlling Emissions During Episodes of High Air Pollution Potential

This rule specifies the conditions that establish an air pollution alert (yellow/red), watch or emergency and the associated procedures and emissions reduction objectives for dealing with each. The permittee shall submit an appropriate emergency plan if required by the Director.

18. 10 CSR 10-6.150, Circumvention

The permittee shall not cause or permit the installation through the use of any device or any other means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission or air contaminant which violates a rule of the Missouri Air Conservation Commission.

- 19. 10 CSR 10-5.070, Open Burning Restrictions
 - (a.) The permittee shall not conduct, cause, permit or allow a salvage operation, the disposal of trade wastes or burning of refuse by open burning.

- (b.) Exception Open burning of vegetation may be permitted only when it can be shown that open burning is the only feasible method of disposal or an emergency exists which requires open burning.
- (c.) Any person intending to engage in open burning shall file a request to do so with the director. The request shall include the following:
 - (1.) The name, address and telephone number of the person submitting the application; The type of business or activity involved; A description of the proposed equipment and operating practices, the type, quantity and composition of vegetation and expected composition and amount of air contaminants to be released to the atmosphere where known;
 - (2.) The schedule of burning operations;
 - (3.) The exact location where open burning will be used to dispose of the trade wastes;
 - (4.) Reasons why no method other than open burning is feasible;
 - (5.) Evidence that the proposed open burning has been approved by the fire control authority, which has jurisdiction.
- (d.) Upon approval of the open burning permit application by the director, the person may proceed with the operation under the terms of the open burning permit. Be aware that such approval shall not exempt Beltservice Corporation from the provisions of any other law, ordinance or regulation.
- (e.) The permittee shall maintain files with letters from the director approving the open burning operation and previous DNR inspection reports.
- 20. 10 CSR 10-5.160, Restriction of Emission of Odors
 - (a.) No person shall emit odorous matter as to cause an objectionable odor on or adjacent to:
 - (1) Residential, recreational, institutional, retail sales, hotel or educational premises.
 - (2) Industrial premises when air containing odorous matter is diluted with twenty (20) or more volumes of odor-free air; or
 - (3) Premises other than those in paragraph (1) A.1. And (2) of the rule when air containing odorous matter is diluted with four (4) or more volumes of odor-free air.
 - (b.) The previously mentioned requirement shall apply only to objectionable odors. An odor will be deemed objectionable when thirty percent (30%) or more of a sample of the people exposed to it believe it to be objectionable in usual places of occupancy; the sample size to be at least twenty (20) people or seventy-five percent (75%) of those exposed if fewer than twenty (20) people are exposed.

This requirement is not federally enforceable.

- 21. 10 CSR 10-5.250, *Time Schedule for Compliance*Except as otherwise specified, compliance with the provisions of this regulation shall be according to the following time schedule:
 - (a) All existing installations shall be in compliance unless the owner or person responsible for the operation of the installation shall have submitted to the director for achieving compliance;
 - (b) All new installations shall comply as of going into operation.

V. General Permit Requirements

Permit Duration

10 CSR 10-6.065(6)@ 1.B.

This permit is issued for a term of five (5) years, commencing on the date of issuance. This permit will expire at the end of this period unless renewed.

General Record Keeping and Reporting Requirements

10 CSR 10-6.065(6)© 1.C

Record Keeping

- A) All required monitoring data and support information shall be retained for a period of at least five (5) years from the date of the monitoring sample, measurement, report or application.
- B) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any St. Louis County or Missouri Department of Natural Resources' personnel upon request.

II) Reporting

- A) The permittee shall submit a report of all required monitoring by:
 - October 1st for monitoring which covers the January through June time period, and
 - 2) April 1st for monitoring which covers the July through December time period.
 - 3) Exception: Monitoring requirements which require reporting more frequently than semi annually shall report no later than 30 days after the end of the calendar quarter in which the measurements were taken.
- B) Each report must identify any deviations from emission limitations, monitoring, record keeping, reporting, or any other requirements of the permit.
- C) All reports shall be submitted to the St. Louis County Department of Health, Air Pollution Control Program, Operating Permit Unit, 111 South Meramec, Clayton, MO 63105.
- D) Submit supplemental reports as required or as needed. Supplemental reports are required no later than ten (10) days after any exceedance of any applicable rule, regulation or other restriction. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken.
 - 1) Notice of any deviation resulting from an emergency (or upset) condition as defined in paragraph (6)© 7 of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two (2) working days after the date on which the emission limitation is exceeded due to the emergency, if you wish to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and that you can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that

exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.

- 2) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.
- 3) Any other deviations identified in the permit as requiring more frequent reporting than the permittee's semiannual report shall be reported on the schedule specified in the permit.
- E) Every report submitted shall be certified by the responsible official, except that, if a report of a deviation must be submitted within ten (10) days after the deviation, the report may be submitted without a certification if the report is resubmitted with an appropriate certification within ten (10) days after that, together with any corrected or supplemental information required concerning the deviation.
- F) The permittee may request confidential treatment of information submitted in any report of deviation.
- G) These supplemental reports shall be submitted to the St. Louis County Department of Health, Air Pollution Control Program, Operating Permit Unit, 111 South Meramec, Clayton, MO 63105 no later than ten (10) days after any exceedance of any applicable rule, regulation, or other restriction.

? Risk Management Plans Under Section 112®

10 CSR 10-6.065(6)© 1.D.

The permittee shall comply with the requirements of 40 CFR Part 68, Accidental Release Prevention Requirements. If the permittee has more than a threshold quantity of a regulated substance in process, as determined by 40 CFR Section 68.115, the permittee shall submit a Risk Management Plan in accordance with 40 CFR Part 68 no later than the latest of the following dates:

- 1) June 21, 1999;
- 2) Three (3) years after the date on which a regulated substance is first listed under 40 CFR Section 68.130; or
- 3) The date on which a regulated substance is first present above a threshold quantity in a process.

3 Severability Clause

10 CSR 10-6.065(6)@ 1.F.

In the event of a successful challenge to any part of this permit, all uncontested permit conditions shall continue to be in force.

General Requirements

- 10 CSR 10-6.065(6)© 1.G
- 1) The permittee must comply with all of the terms and conditions of this permit. Any noncompliance with a permit condition constitutes a violation and is grounds for enforcement action, permit termination, permit revocation and re-issuance, permit modification or denial of a permit renewal application.

- 2) The permittee may not use as a defense in an enforcement action that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
- 3) The permit may be modified, revoked, reopened, reissued or terminated for cause. Except as provided for minor permit modifications, the filing of an application or request for a permit modification, revocation and re-issuance, or termination, or the filing of a notification of planned changes or anticipated noncompliance, will not stay any permit condition.
- 4) This permit does not convey any property rights of any sort, nor grant any exclusive privilege.
- 5) The permittee shall furnish to the permitting authority, upon receipt of a written request and within a reasonable time, any information that the permitting authority reasonably may require to determine whether cause exists for modifying, reopening, reissuing or revoking the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the permitting authority copies of records required to be kept by the permittee. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 10 CSR 10-6.065(6)© 1.

S Incentive Programs Not Requiring Permit Revisions

10 CSR 10-6.065(6)@ 1.H.

No permit revision will be required for any installation changes made under any approved economic incentive, marketable permit, emissions trading, or other similar programs or processes provided for in this permit.

6 Compliance Requirements

10 CSR 10-6.065(6)@ 3.

- I) Any document (including reports) required to be submitted under this permit should contain a certification signed by the responsible official.
- II) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized officials of the St. Louis County Air Pollution Control Section or the Missouri Department of Natural Resources, or their authorized agents, to perform the following (subject to the installation's right to seek confidential treatment of information submitted to, or obtained by, the SLCDOH):
 - A) Enter upon the premises where a permitted installation is located or an emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
 - B) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - C) Inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - D) As authorized by the Missouri Air Conservation Law, Chapter 643, RSMo or the Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the terms of this permit, and all applicable requirements as outlined in this permit.

- III) All progress reports required under an applicable schedule of compliance shall be submitted semiannually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following:
 - A) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and
 - B) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
- IV) The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards, or work practices. These certifications shall be submitted annually unless the applicable requirement specifies more frequent submission. The compliance certification shall include the following:
 - A) The identification of each term or condition of the permit that is the basis of the certification.
 - B) The current compliance status, as shown by monitoring data and other information reasonably available to the installation,
 - C) Whether compliance was continuous or intermittent,
 - D) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period, and
 - E) Such other facts as the St. Louis County Air Pollution Control Section will require in order to determine the compliance status of this installation.

7 Permit Shield

10 CSR 10-6.065(6)@ 6.

- I) Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date that this permit is issued, provided that:
 - A) The applicable requirements are included and specifically identified in this permit; or
 - B) The permitting authority, in acting on the permit revision or permit application, determines in writing that other requirements, as specifically identified in the permit, are not applicable to the installation, and this permit expressly includes that determination or a concise summary of it.
- II) Be aware that there are exceptions to this permit protection. The permit shield does not affect the following:
 - A) The provisions of section 303 of the Act or section 643.090, RSMo concerning emergency orders,
 - B) Liability for any violation of an applicable requirement which occurred prior to, or was existing at, the time of permit issuance,
 - C) The applicable requirements of the acid rain program,
 - D) The administrator's authority to obtain information, or
 - E) Any other permit or extra-permit provisions, terms or conditions expressly excluded from the permit shield provisions.

Emergency Provisions

10 CSR 10-6.065(6)@ 7.

- I) An emergency or upset as defined in 10 CSR 10-6.065(6)© 7. Shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emissions limitations. To establish an emergency- or upset-based defense, you must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, the following:
 - A) That an emergency or upset occurred and that you can identify the source of the emergency or upset,
 - B) That the installation was being operated properly.
 - C) That you took all reasonable steps to minimize emissions that exceeded technology-based emissions limitations or requirements in this permit, and
 - D) That you submitted notice of the emergency to the SLCDOH within two (2) working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.
- II) Be aware that an emergency or upset shall not include noncompliance caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

Operational Flexibility

10 CSR 10-6.065(6)@ 8.

An installation that has been issued a Part 70 operating permit is not required to apply for or obtain a permit revision in order to make any of the changes to the permitted installation described below if the changes are not Title I modifications, the changes do not cause emissions to exceed emissions allowable under the permit, and the changes do not result in the emission of any air contaminant not previously emitted. The permittee shall notify the St. Louis County Air Pollution Control Section and the Administrator of the EPA at least seven (7) days in advance of these changes, except as allowed for emergency or upset conditions. Emissions allowable under the permit means a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that established an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

- Section 502(b)(10) changes. Changes that, under section 502(b)(10) of the Act, contravene an express permit term may be made without a permit revision, except for changes that would violate applicable requirements of the Act or contravene federally enforceable monitoring (including test methods), record keeping, reporting or compliance requirements of the permit.
 - A) Before making a change under this provision, The permittee shall provide advance written notice to the St. Louis County Air Pollution Control Section and to the Administrator of the EPA, describing the changes to be made, the date on which the change will occur, and any changes in emission and any permit terms and conditions that are affected. The permittee shall maintain a copy of the notice with the permit, and this agency shall place a copy with the permit in the public file. Written notice shall be provided to the Administrator of the EPA and

the St. Louis County Air Pollution Control Section at least seven (7) days before the change is to be made. If less than seven (7) days notice is provided because of a need to respond more quickly to these unanticipated conditions. The permittee shall provide notice to the Administrator of the EPA and the St. Louis County Air Pollution Control Section as soon as possible after learning of the need to make the change.

B) The permit shield shall not apply to these changes.

10 Off-Permit Changes

10 CSR 10-6.065(6)© 9.

- I) Except as noted below, The permittee may make any change in its permitted operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. Insignificant activities listed in the application, but not otherwise addressed in or prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the off-permit provisions of this section. Off-permit changes shall be subject to the following requirements and restrictions:
 - A) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; The permittee may not change a permitted installation without a permit revision, if this change is subject to any requirements under Title IV of the Act or is a Title I modification;
 - B) The permittee must provide written notice of the change to the St. Louis County Air Pollution Control Section and to the Administrator of the EPA no later than the next annual emissions report. This notice shall not be required for changes that are insignificant activities under paragraph (6)(B) 3. Of this rule. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change.
 - C) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes; and
 - D) The permit shield shall not apply to these changes.

(Responsible Official

10 CSR 10-6.020(2)® 12.

The application that was utilized in the preparation of this permit is dated July 14, 1997; and was signed by Gregory R. Ribaudo, District Manager. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the St. Louis County Air Pollution Control Section of the change. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the

installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

ZStatement of Basis

10 CSR 10-6.065(6)(E) 1.C.

A statement setting forth the legal and factual basis for the draft permit conditions (including references to applicable statutory or regulatory provisions) accompanies this permit. This Statement of Basis, while referenced by the permit, is not an actual part of the permit.

Attachment A

This record keeping sheet may be used to meet the record keeping requirements for

Date	Observer	PW001 Description of Exceedance (Location, duration, type of exceedance and other information)	Description of Maifunction (Emission unit, nature of maifunction, duration
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Attachment B

This record keeping sheet may be used for the record keeping requirements of the opacity

limitations	within	the	permit:

	Method 22 Test		If Visible emissions, was] [Date	Method 22 Test	Visible Emissions	If Visible emissions, was
	(tnitials)	s (yes/no)	a method 9 done? (yes/no)			(initials)	(yes/no)	a method 9 done? (yes/no)
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Observations	Clock Time	Observation Period Duration,	Accumulated Emission Time
Observations			
		Period Duration, min:sec	Emission Time
		Period Duration,	Emission Time
		Period Duration, min:sec	Emission Time
Observations Begin Observation		Period Duration, min:sec	Emission Time

STATEMENT OF BASIS

Permit Reference Documents

These documents were relied upon in the preparation of the operating permit. Because they are not incorporated by reference, they are not an official part of the operating permit.

1) Part 70 Operating Permit Application, dated July 14, 1997;

2) 1998 Emissions Inventory Questionnaire, received April 01, 1999;

- 4) U.S. EPA document AP-42, Compilation of Air Pollutant Emission Factors; Volume I, Stationary Point and Area Sources, Fifth Edition;
- 5) Construction permit CP 5454;
- 6) Construction permit CP 5924.

Applicable Requirements Included in the Operating Permit but not in the Application In the operating permit application, the installation indicated they were not subject to the following regulation(s). However, in the review of the application, the agency has determined that the installation is subject to the following regulation(s) for the reasons stated.

10 CSR 10-6.080, Emission Standards for Hazardous Air Pollutants,

40 CFR Part 61 Subpart M, National Standards for Asbestos; and 10 CSR 10-6.250, Asbestos Abatement Projects - Certification, Accreditation, and Business Exemption Requirements

The installation must comply with the requirements of these regulations if they undertake any projects that deal with or involve any asbestos containing materials. Although at the time of the application there were no projects underway involving asbestos, the requirements are cited for such a time when an asbestos project may be undertaken.

St. Louis County Air Pollution Control Code, Section 612.040, Air Quality Standards and Air Pollution Control Regulations;

St. Louis County Air Pollution Control Code, Section 612.100, Emergency Abatement of Violation;

St. Louis County Air Pollution Control Code, Section 612.200, Testing to Granting of Operation Permit;

St. Louis County Air Pollution Control Code, Section 612.220, Suspension or Revocation of Permits;

St. Louis County Air Pollution Control Code, Section 612.260, Schedules;

St. Louis County Air Pollution Control Code, Section 612.290, Right of Entry; Inspections; Samples; and

St. Louis County Air Pollution Control Code, Section 612.380, Interfering with or Obstruction Division Personnel.

These rules have been included in the operating permit as being an obligatory requirement applicable to all facilities.

10 CSR 10-5.050, Restriction of Emission of Particulate Matter from Industrial Processes
This rule has been included in the operating permit as being a requirement
applicable to all facilities. Facility's equipment (burning operations) does not
include to the exception of this rule.

Other Air Regulations Determined Not to Apply to the Operating Permit

The Air Pollution Control Program (APCP) and SLCDOH has determined the following requirements to not be applicable to this installation at this time for the reasons stated. 10 CSR 10-5.300, Control of Emissions from Solvent Metal Cleaning

This rule is not included because the installation does not clean any metal surfaces. 10 CSR 10-5.050 Restriction of Emission of Particulate Matter from Industrial Processes, doesn't apply to EU-0020 and EU0080 because the rule excludes liquids and gases used solely as fuels.

St. Louis County Air Pollution Control Code, Section 612.140, Transfer;

St. Louis County Air Pollution Control Code, Section 612.150, Permit to Operate - When Required;

St. Louis County Air Pollution Control Code, Section 612.160, General Requirements for Applications for Authority to construct and Operating Permits; and

St. Louis County Air Pollution Control Code, Section 612.170, Information Required for Application for Permits.

These rules are not included because no changes have been made at the facility that would trigger these procedural requirements.

10 CSR 10-6.260, Restriction of Emission of Sulfur Compounds This rule is not included because the installation does apply to rule 10 CSR 10-6.070. This is not necessary to apply to both rules.

Construction Permit Revisions

The following revisions were made to construction permits for this installation: None.

NSPS Applicability

40 CFR Part 60 Subpart Cc "Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills", does not apply because 40 CFR Part 60 Subpart WWW, "Standards of Performance for Municipal Solid Waste Landfills", applies. Subpart WWW applies to Municipal Solid Waste Landfills that have constructed, reconstructed or modified the facility after May 30, 1991. Bridgeton Landfill applied and received a vertical expansion in March of 1998.

40 CFR Part 60 Subpart Kb "Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984", does not apply because the facility individual tank capacity is not greater than or equal to 40 cubic meters (10,567 gallons).

MACT Applicability

None.

NESHAP Applicability

40 CSR Part 61, Subpart M, National Emission Standards for Asbestos

Other Regulatory Determinations

1. 10 CSR 10-5,050 Restriction of Emission of Particulate Matter from Industrial Processes.

Particulate matter is emitted from the landfill gas collection system (EU0020), when flares burn landfill gas. For the purpose of determining compliance with this regulation, the following calculations were performed.

E = 60 * V * C

Where:

E = rate of emission in pounds/hr;

V = gas volume in cubic foot per minute;

C = concentration in pounds per cubic foot; and

60 = minutes in hour.

According Table II 10 CSR 10-5.050

C = 0.1 grain per cubic foot * 0.065 gram per grain / 453.6 gram per pound = 0.000014 pounds per cubic foot E = 60 * 1000 * 0.000014 =

=0.84 pounds/hour of particulate matter

The same particulate matter is emitted from the landfill gas collection system (EU0080), when flares burn landfill gas. For the purpose of determining compliance with this regulation, the following calculations were performed.

According Table II 10 CSR 10-5.050

C = 0.1 grain per cubic foot * 0.065 gram per grain / 453.6 gram per pound = 0.000014 pounds per cubic foot E = 60 * 2500 * 0.000014 =

=2.10 pounds/hour of particulate matter

- 2. All St. Louis County Air Pollution Control Code Rules are included to Core Permit Requirements because the SLCDOH felt that they needed to have covered by the permit.
- 3. The following emission sources as Borrow Area, Haul Road; Borrow Area Stock Pile; Borrow Area Stock Pile, Haul Road; Haul Road, Packers and Haul Road, Trailers are included to "Emission Unit Without Limitation" because there is the fugitive emission of particular matter in an each source.

Other Regulations Not Cited in the Operating Permit or the Above Statement of Basis Any regulation which is not specifically listed in either the Operating Permit or in the above Statement of Basis does not appear, based on this review, to be an applicable requirement for this installation for one (1) or more of the following reasons:

- 1. The specific pollutant regulated by that rule is not emitted by the installation;
- 2. The installation is not in the source category regulated by that rule:
- 3. The installation is not in the county or specific area that is regulated under the authority of that rule;

Project No. 2000-03-035

4. The installation does not contain the type of emission unit which is regulated by that rule:

for Any Yarovinskin

5. The rule is only for administrative purposes.

Should a later determination conclude that the installation is subject to one (i) or more of the regulations cited in this Statement of Basis or other regulations which were not cited, the installation shall determine and demonstrate, to the satisfaction of the SLCDOH, the installation's compliance with that regulation(s). If the installation is not in compliance with a regulation, which was not previously cited, the installation shall submit to the SLCDOH a schedule for achieving compliance for that regulation(s).

Prepared by:

Ariy Yarovinskiy

Permit Engineer, SLCDOH

Metropolitan St. Louis Sewer District Industrial Wastewater Discharge Permit Permit No. 05115598-02



Metropolitan St. Louis Sewer District

Division of Environmental Compliance 10 East Grand Avenue St Louis, MO 63147-2913 (314) 436-8710. FAX (314) 436-8753

October 3, 2005

Allien Steinkamp Environmental Manager BRIDGETON LANDFILL, LLC 13570 St. Charles Rock Road Bridgeton, MO 63044

Discharge Permit No: 05115598-02

For premise at:

13570 St Charles Rock Road

Dear Mr. Steinkamp:

Enclosed is the Metropolitan St. Louis Sewer District Industrial Wastewater Discharge Permit for the premise identified above. This permit is issued pursuant to the federal pretreatment regulations in 4O CFR 403 as amended October 3, 2001. This permit has been prepared based on information th at you supplied in the District's Industrial User Questionnaire, on results from previous wastewater samplings and inspections and on requirements contained in existing MSD ordinances and state and federal regulations.

Except as noted in this paragraph, the terms and conditions of this permit are substantially the same as in the previous permit. The monitoring frequencies for Chromium and Mercury at sampling points 006 and 007 have been revised from quarterly to annually. Additionally, Section I of the permit conditions has been reorganized and includes additional clarifying language but does not contain arry new requirements. Other minor changes may have been made to improve the overall clarity of the document.

The previous permit, effective December 1, 2000, is voided as of the effective date of the enclosed

Monitoring reports required by the conditions of this permit must be submitted quarterly for the life of the permit. The first report due date, for this reissued permit, is based on a complete calendar quarter monitoring period. The permittee remains responsible for reporting for the preceding calendar quarter under the previous permit. Copies of the necessary report forms are enclosed.

If you disagree with any of the terms or conditions of this permit please inform us, in writing, within 15 working days of receipt. Absence of a response within this time frame will be deemed acceptance, by you, of the provisions of this permit.

You may contact us at 436-8756 at any time if you have any question about your permit.

Sincerely. AN ST LOUIS SEWER DISTRICT

Fabian T. Grabski Assistant Engineer

Endosures

METROPOLITAN ST. LOUIS SEWER DISTRICT DEPARTMENT OF ENVIRONMENTAL COMPLIANCE INDUSTRIAL WASTEWATER DISCHARGE PERMIT

PERMIT NO: 05115598-02

EFFECTIVE DATE:

December 01, 2005

EXPIRATION DATE:

November 30, 2010

ISSUED TO: BRIDGETON LANDFILL, LLC

13570 ST. CHARLES ROCK ROAD

BRIDGETON, MO 63044

SIC NUMBER(S): 4953

TOTAL NUMBER OF PERMITTED DISCHARGE POINTS: TWO

SAMPLING PT. REF NUMBER(S): 006, 007

In accordance with the provisions of the Federal Pretreament Regulations (40 CFR 403) and Metropolitan St. Louis Sewer District Ordinance No. 8472, the permittee is hereby authorized to discharge wastewater into the Metropolitan St. Louis Sewer District's sanitary or combined sewer system. All discharges so authorized shall be limited and controlled pursuant to the terms and conditions of this permit.

Noncompliance with any term or condition of this permit shall constitute an ordinance violation. If formal enforcement action is required to gain compliance, the permittee who is found guilty of a violation shall be subject to fine or imprisonment, or both such fine and imprisonment, for each violation. Each day in which any such violation shall continue shall be deemed a separate offense.

Compliance with the terms and conditions of this permit does not relieve the permittee of the obligation to comply with all other applicable pretreatment regulations, standards, or requirements under local, State and Federal laws, including any such regulation, standard, legal requirement, or law that may become effective during the life of this permit.

This permit only authorizes wastewater discharges identified herein. It does not apply to any other discharge.

METROPOLITAN ST. LOUIS SEWER DISTRICT

Assistant Engineer

Industrial Waste Engineer

Permit No.: <u>05115598-</u>02 Page No.: Effective Date: December 01, 2005

DISCHARGE DESCRIPTION

SAMPLING POINT REFERENCE NUMBER: 006*****

SAMPLING POINT LOCATION: 1/2" blue spigot in leachate pump vault, 21' NE of NE SW Bell building

AVERAGE WASTEWATER FLOW (GPD): 250,000

WASTEWATER SOURCE AND CATEGORY: Landfill leachate

DISCHARGE LIMITATIONS AND SELF-MONITORING REQUIREMENTS

Da	Limit *	Limit	Sampling
Parameter	Limit "	Type **	Frequency
Flow [GPD]	***	Daily Avg	***
Biochemical Oxygen Demand (5 Day) [mg/L]	***	Daily Avg	Once/3 mo
Chemical Oxygen Demand [mg/L]	****	Daily Avg	Once/3 mo
Oil and Grease (Total) [mg/L]	200	Instant	Once/3 mo
pH [SU]	11.5	Instant	Once/3 mo
pH [SU]	5.5	Instant	Once/3 mo
Temperature [Deg C]	60	Instant	Once/3 mo
Total Suspended Solids [mg/L]	***	Daily Avg	Once/3 mo
Ammonia (as N) [mg/L]	****	Daily Avg	Once/3 mo
Arsenic (Total) [mg/L]	.4	Daily Avg	Once/year
Cadmium (Total) [mg/L]	7,7	Daily Avg	Once/year
Chromium (Total) [mg/L]	5	Daily Avg	Once/year
Copper (Total) [mg/L]	2.7	Daily Avg	Once/3 mo
Lead (Total) [mg/L]	.4	Daily Avg	Once/year
Mercury (Total) [mg/L]	.01	Daily Avg	Once/year
Nickel (Total) [mg/L]	2.3	Daily Avg	Once/3 mo
Zinc (Total) [mg/L]	3	Daily Avg	Once/3 mo
Total Toxic Organics [mg/L]	5.52	Instant	Once/year

Limits are based on MSD Ordinance 8472 and applicable federal categorical standards. See Section II of the permit conditions for explanation of any adjustments to the published limits made pursuant to Article V, Section 2.A of the Ordinance.

See Section I.A.2 of the permit conditions.

Report a measured or estimated average daily flow for at least one representative operating day per quarter. If additional flow measurements or estimates are made, all must be reported.

^{****} See Section I.A.11 of the permit conditions.

^{*****} See Section ILC.1 of the permit conditions.

05115598-02

Page No.:

Effective Date: December 01, 2005

DISCHARGE DESCRIPTION

SAMPLING POINT REFERENCE NUMBER: 007*****

SAMPLING POINT LOCATION: 14" pipe into Westlink Pump Station Wetwell, on S side

AVERAGE WASTEWATER FLOW (GPD): 250,000

WASTEWATER SOURCE AND CATEGORY: Landfill leachate

DISCHARGE LIMITATIONS AND SELF-MONITORING REQUIREMENTS

	<u></u>		
The second of th	**************************************	Limit	Sampling
Parameter	Limit *	Type **	Frequency
Flow [GPD]	林林水	Daily Avg	***
Biochemical Oxygen Demand (5 Day) [mg/L]	***	Daily Avg	Once/3 mo
Chemical Oxygen Demand [mg/L]	· 中山 · 市	Daily Avg	Once/3 mo
Oil and Grease (Total) [mg/L]	200	Instant	Once/3 mo
pH [SU]	11.5	Instant	Once/3 mo
pH [SU]	5.5	Instant	Once/3 mo
Temperature [Deg C]	60	Instant	Once/3 mo
Total Suspended Solids [mg/L]	本本本本	Daily Avg	Once/3 mo
Ammonia (as N) [mg/L]	安全市 中	Daily Avg	Once/3 mo
Areenic (Total) [mg/L]	.4	Daily Avg	Once/year
Cadmium (Total) [mg/L]	.7	Daily Avg	Once/year
Chromium (lotal) [mg/L]	5	Daily Avg	Once/year
Copper (Total) [mg/L]	2.7	Daily Avg	Once/3 mo
Lead (Total) [mg/L]	.4	Daily Avg	Once/year
Mercury (Total) [mg/L]	.01	Daily Avg	Once/year
Nickel (Total) [mg/L]	2.3	Daily Avg	Once/3 mo
Zinc (Total) [mg/L]	3	Daily Avg	Once/3 mo
Total Toxic Organics [mg/L]	5,52	Instant	Once/year

Limits are based on MSD Ordinance 8472 and applicable federal categorical standards. See Section II of the permit conditions for explanation of any adjustments to the published limits made pursuant to Article V, Section 2.A of the Ordinance.

See Section 1.A.2 of the permit conditions.

Report a measured or estimated average daily flow for at least one representative operating day per quarter. If additional flow measurements or estimates are made, all must be reported.

^{****} See Section LA11.of the permit conditions.

^{****} See Section II.C.1 of the parmit conditions.

05115598-02

Page No.: Effective Date:

December 01, 2005

PERMIT CONDITIONS

SECTION I - GENERAL CONDITIONS:

A. MONITORING AND REPORTING REQUIREMENTS:

- 1. From the effective date of this permit, the permittee shall sample and analyze the discharge, at each of the identified sampling points. The pollutants to be monitored, the limitations, limitation types and minimum sampling frequencies are specified individually for each sampling point. The results of sample analyses and the results of all other self-monitoring activities specified in this permit shall be reported to the District as per paragraph A.9 below.
 - 2. The limitation types, which may be specified in this permit, are defined as follows:

An INSTANT limitation is the maximum allowable concentration or mass of the pollutant in a grab sample for all pollutants except pH and temperature. For pH, the INSTANT limitations are the minimum and maximum allowable instantaneous pH values in standard units. For temperature, the INSTANT limitation is the maximum allowable instantaneous temperature in degrees Celsius (centigrade).

A DAILY AVG limitation is the maximum allowable concentration or mass of the pollutant in a composite sample collected within a 24-hour period.

A DAILY MAX limitation is the maximum allowable concentration or mass of the pollutant in any sample collected within a 24-hour period.

A MONTHLY AVG limitation is the maximum allowable average concentration or mass of the pollutant determined by calculating the arithmetic average of the concentrations or masses found in all daily samples collected within a calendar month.

A 4-DAY AVG limitation is the maximum allowable average concentration or mass of the pollutant determined by calculating the arithmetic average of the concentrations or masses found in the daily samples collected on four consecutive sampling days. Sampling days are not necessarily consecutive calendar days.

Note: A daily sample is any sample collected within a 24-hour period.

Permit No.: 05115598-02
Page No.: 5
Effective Date: December 01, 2005

3. Unless specified otherwise in Section II of these conditions all samples, collected to satisfy the monitoring and reporting requirements of this permit, shall be of the following types:

- a Temperature, pH and chlorine residual measurements, when required, shall be made on-site at the points of discharge and those measurements reported as grab sample results except, if continuous monitoring is employed for pH and/or temperature, reporting shall be as per paragraph A.7 below.
- b. For oil and grease, total phenols, cyanide, sulfide and volatile organics, when required, samples shall be Grab Samples.
- c. For all other pollutants, samples shall be COMPOSITE SAMPLES made up by combining a minimum of four individual grab samples within a 24-hour period. The individual grabs must be adequately flow or time proportioned to ensure a composite sample that is representative of that day's discharge.
- 4. When monitoring is required for Total Toxic Organics (TTO), the TTO result shall be determined by summing all quantifiable values greater than 0.01 mg/l for the applicable toxic organics.
 - a. For a discharge subject to a categorical pretreatment standard, the applicable toxic organics are listed in the standard. The standards are contained in 40 CFR 405 through 40 CFR 471.
 - b. For all other discharges the applicable toxic organics are all of those, from the list in 40 CFR 401.15, which are or may be present in the discharge,

In addition to reporting the summed TTO result, the permittee shall include, with the self-monitoring report, the analytical value obtained for each toxic organic analyzed.

- 5. Sampling of all discharges shall be conducted in such a manner as to ensure that the results of individual samples (whether grab or composite) are representative of normal operations and that the results of all samples during the reporting period are representative of the conditions during the reporting period.
- 6. All sampling and analyses performed to satisfy the monitoring and reporting requirements of this permit shall be performed in accordance with the techniques prescribed in 40 CFR 136 and amendments thereto unless other techniques are prescribed, within this permit, for specific parameters.
- 7. If the permittee employs continuous monitoring techniques for pH and/or temperature at any sampling point identified in this permit, unintentional and temporary excursions outside the limitations are allowed subject to the provisions of Article X, Subsection Two-C of District Ordinance 8472. The permittee shall include, with each self-monitoring report, a summary of the continuous temperature and/or pH monitoring data. For each month, the summary shall show all excursions outside the permitted limitations, the elapsed time for each excursion, the total time for all excursions for temperature and the total time for all excursions for pH.
- 8. If the permittee monitors any of the listed pollutants, using the methods specified in this permit, more often than required by this permit, the results of all such additional monitoring and any additional flow measurements shall be included in the self-monitoring reports.
- 9. A solf-monitoring report (on forms supplied by the District) shall be submitted to the District's Department of Environmental Compliance for each calendar quarter. Each report shall include:
 - a. All facility and sample description information required on the District's reporting form.
 - b. Analytical results, with dates and times, for all analyzed samples collected within the quarter.

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c. Daily flows, with dates, for all measurements or estimates made within the quarter.

d. Any certification statements required pursuant to the Special Conditions in Section II.

e. Any other data or attachments required pursuant to the Special Conditions in Section II.

Each self-monitoring report shall be certified and signed by an individual authorized in accordance with the provisions of Article X, Section Three of District Ordinance 8472. The reports shall be submitted to the District as soon as possible after all required data are available, but no later than 28 days after the end of each quarter.

For the calendar quarter of:

January 1 through March 31

April 1 through June 30

July 28

July 1 through September 30

October 1 through December 31

The report must be postmarked no later than:

April 28

July 28

July 28

July 28

January 28

A report must be submitted for each calendar quarter even if, for any reason, sampling was not required or was not performed during the quarter. The first report, under the terms of this permit, is due by January 28, 2006.

- 10. If any sampling performed by the permittee, using the methods specified in this permit, indicates a violation of any permit limitation, the permittee shall notify the District's Department of Environmental Compliance within one business day of becoming aware of the violation. The permittee shall resample the discharge and shall submit the results of the resampling within thirty (30) days of becoming aware of the violation.
- 11. Unless specified elsewhere in this permit, discharges of Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD) and Total Suspended Solids (TSS) are not limited under the terms of this permit. However, the monitoring values reported will be used by the District to assess the applicability of extra-strength surcharges under the provisions of the District's Wastewater User Charge Ordinances. Extra-strength surcharges may be applicable when measured values exceed 300 mg/l for BOD, 600 mg/l for COD and/or 300 mg/l for TSS. If the permittee is currently subject to extra-strength surcharge, the BOD, COD and TSS values used for billing, as of the permit effective date, are listed in Section II of the permit conditions. These values are updated periodically and may change during the life of this permit.

B. CHANGE IN DISCHARGE:

- 1. The permittee shall not significantly increase the average daily volume, or flow rate of discharge or add any significant new pollutants or significantly increase the discharge of existing pollutants set forth in this permit without first having secured an amendment to the permit unless the permit conditions authorize such increase or additions without an amendment.
- 2. The permittee shall notify the District's Department of Environmental Compliance of any proposed significant new or increased discharge. The permittee shall make the notification at least ten (10) business days prior to the date of the planned increase or addition.

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Page No.: <u>7</u>

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December 01, 2005

- 3. As defined in Article II of District Ordinance 8472, significant new or increased discharge means:
 - Any discharge from a new process or facility or a new source.
 - b. Any increase in volume or rate of discharge from an existing process or facility when the new long term average daily volume or rate of discharge will exceed the previous long term average by 20% or more.
 - c. Any addition of a priority pollutant or toxic pollutant not previously present or suspected present in the permittee's discharge.
 - ci. Any addition of a hazardous waste subject to, but not previously reported under the reporting requirements in Article VIII, Section Nine of District Ordinance 8472.
 - Any increase in mass of an existing regulated pollutant when the new long term average daily mass discharge of that pollutant will exceed the previous long term average by 20% or more.
 - Any addition of a new pollutant or any increase in mass of an existing pollutant when the discharge of such pollutant may cause or contribute to interference or pass-through as these terms are defined in Article II of District Ordinance 8472.
 - g. Any new batch discharges when previous discharges from an existing source at the permitted facility occurred on a continuous basis.

C. PROBLEM DISCHARGE:

- 1. Problem discharge means any upset, slug discharge, bypass, spill or accident which does or may result in a discharge into the District's system of a prohibited substance; or of a regulated substance in excess of limitations established in this permit and which may: (a) cause interference or pass through; or (b) contribute to a violation of any requirement of the District's NPDES permit; or (c) cause violation of any State or Federal water quality standard.
- 2. In the event of any problem discharge into the District's system, the permittee shall immediately notify the District; by telephone, of the incident and shall provide such information as may be required at that time in order to assess the impact of the incident on the District's system or on water quality. Within five (5) business days following any such incident, the permittee shall submit to the District's Department of Environmental Compliance a detailed written report which contains a description of the incident and its cause, location within the permittee's facility, exact dates and times of the period of problem discharge and, if not yet corrected, the anticipated time the incident is expected to continue, and steps taken or planned to correct the current incident and to reduce, climinate and prevent occurrences of future such incidents.

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D. BYPASSING PROHIBITED:

The permittee may not bypass any portion of its pretreatment facilities except when necessary to perform essential maintenance and then only if the bypass will not result in a violation of applicable pretreatment standards or requirements. Any other pretreatment facility bypass is prohibited unless:

- a. The bypass is unavoidable to prevent loss of life, personal injury or severe property damage;
- b. There are no feasible alternatives to the bypass; and
- c. In the event of an anticipated bypass, advance notice is provided to the District's Department of Environmental Compliance.

E. PERMIT REVOCATION:

This permit may be revoked after thirty (30) days notice to the permittee for cause including, but not limited to, the following causes:

- a. A violation of any term or condition of this permit.
- b. A misrepresentation or failure to fully disclose all relevant facts in obtaining this permit.

F. PERMIT TERMINATION OR MODIFICATION:

- 1. This permit may be modified, after thirty (30) days notice to the permittee following promulgation of new State. Federal or local regulations to ensure compliance with the effective dates contained in any such new regulations.
- 2. Whenever any discharge covered by this permit is permanently eliminated, or when the circumstances upon which the permit was based pursuant to MSD Ordinance 8472 Article VI; Subsection 3.A, change, this permit will be terminated or modified upon verification of the changes by the District's Department of Environmental Compliance.

G. PERMIT RENEWAL:

The permittee shall apply for renewal of this permit at least one hundred eighty (180) days prior to the expiration date contained herein.

H. PERMIT TRANSFER:

This permit may not be transferred or reassigned. If the premise covered by this permit is sold or otherwise transferred to a new owner, the new owner shall apply for a new permit at least ten (10) days prior to the transfer and shall abide by all of the provisions of District Ordinance 8472 until the District issues a new permit or denies the application.

<u>051 1559</u>8-02

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December 01, 2005

L RIGHT OF ENTRY:

In order to ensure compliance with the provisions of this permit, District Ordinances and applicable State and Federal regulations, District representatives may inspect a permittee's treatment, pretreatment or discharge control facilities, or any process or any area of the permittee's premise which may be a source of any discharge or a source of any pollutants contained in any discharge into the District's wastewater system; conduct sampling of such facilities, processes or areas; and examine or copy any permittee's records related to such discharges. Any duly authorized representative of the District, upon presentation of proper credentials and after execution of appropriate confidentiality agreements, shall be permitted access to appropriate areas of the permittee's premises without prior notice for these purposes. A representative of the permittee shall, if appropriate, accompany the District representative while the work is being performed and shall assure that all applicable safety rules are being observed by the District's representative.

J. RECORDS RETENTION:

The permittee shall retain and preserve, for not less than three (3) years, all records, books, documents, memoranda, reports, sample analysis results, correspondence and any and all summaries thereof relating to the monitoring, sampling and chemical analyses of the permittee's discharge made by or on the permittee's behalf

K. DEFINITIONS:

Unless the context specifically indicates otherwise, the meaning of terms used in this permit shall be as defined in Article II of District Ordinance 8472.

L. SEWER USE ORDENANCE:

Unless the context specifically indicates otherwise, the permittee is subject to all provisions of District Sewer Use Ordinance 8472.

M. NOTIFICATION AND REPORTING:

All notifications and reports required by this permit shall be directed to:

Metropolitan St. Louis Sewer District Department of Environmental Compliance 10 East Grand Avenue St. Louis, Missouri 63147-2913

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Effective Date:

December 01, 2005

2. Emergency notifications may be made 24-hours a day, 7 days a week by calling the District's dispatcher at (314) 768-6260.

M. NOTIFICATION AND REPORTING:

1. All notifications and reports required by this permit shall be directed to:

Metropolitan St. Louis Sewer District Department of Environmental Compliance 10 East Grand Avenue St. Louis, Missouri 63147-2913

- 2. Emergency notifications may be made 24-hours a day, 7 days a week by calling the District's dispatcher at (314) 768-6260.
- 3. During normal business hours, notifications may be made by calling the District's Department of Environmental Compliance at (314) 436-8710.

SECTION II - SPECIAL CONDITIONS:

These Special Conditions may supplement and/or amend the standard terms of this permit or the General Conditions in Section I. Where there is any perceived conflict between a Special Condition and either the standard permit terms or the General Conditions of Section I, the Special Condition shall govern.

- A. Special Certification and Reporting Requirements:
- 1. This permit does not regulate discharges at MSD sampling points 002, 003, and 004. These discharges are subject to State regulation under NPDES permit number MO-0112771: Should the permittee plan to resoute any portion of the flow currently discharged under the NPDES permit to District sewers, the permittee shall notify the District's Department of Environmental Compliance at least ten (10) days prior to the date of the planned change.
- B. Special Billing Reporting Requirements:
- 1. For billing purposes, the permittee shall submit monthly reports of the volume of leachate discharged through sampling points 006 and 007. These reports shall be sent to:

Toni McGarry
MSD Finance Department
2350 Market Street
St. Louis, MO 63103

The reports shall be sent within 15 days of the end of each month. Copies of the monthly volume reports shall also be included with the routine quarterly self-monitoring reports required pursuant to General Condition LA.

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fantina Date	December 01 2005

C. Special Sampling and Analytical Procedures:

1. Due to low discharge rates at sampling point 006, samples may also be collected at sampling point 007 by the District and the permittee. Both sampling points convey the same discharge. Results from either sampling point are considered equivalent for compliance monitoring.

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METROPOLITAN ST. LOUIS SEWER DISTRICT DEPARTMENT OF ENVIRONMENTAL COMPLIANCE

INSTRUCTIONS FOR COMPLETING INDUSTRIAL USER SELF MONITORING REPORT

- 1. Monitoring reports are to be submitted to MSD on a quarterly basis. Samples must be collected within the calendar quarter and the results supmitted to the MSD Department of Environmental Compliance within 28 days after the end of the quarter. You must submit a report for each quarter even if you had no discharge during the quarter.
- You must use the reporting forms provided by MSD unless you obtain approval from the District to use a company designed form.
 Any non-MSD form must include all of the information and cartifications included in the MSD form.
- 3. The MSD form, properly filled out & signed, constitutes your complete monitoring report. Please do not include a cover letter or any attachmenta unless they are absolutely essential to explain information on the form or to explain reporting deficiencies or problems. When you sign the laport form you will certify that all information contained therein as true, complete and accurate.
- 4. Print or type all information. Fill in all blanks. Use additional copies of the form if more space is needed:
- 5. All analyses must be performed in accordance with the techniques prescribed in 40 CFR 136 and amendments thereto unless other techniques are prescribed for specific personaters. Provide the name of the laboratory that performed the analyses. If the snalyses were performed inhouse, provide the name and title of the individual responsible for the analyses.
- Provide the MSD sample point reference numbers for which the data is being submitted. These numbers are contained in your permit. You must use the MSD sample point reference numbers to ensure accurate evaluation of your company's compliance status.
- 7. You must report ensitical results for all the parameters listed in your permit. If you monitor your discharges more untan than required by the permit using approved methods; the results of all-such mentioning and any additional flow measurements must be included in the report....
- For Total Toxic Organics analysis, record the "Total" on the MSD form. Attach a list of the individual toxic organics analysed and their individual results.
- 9. In the blanks provided, print or type the parameters and limits listed in your permit. Record the date and time each sample was collected. It is composite sample sparis two days, record the dates the compositing period started and ended and record the times the compositing period started and ended. Record the type of sample (use G for grab, C for composite and for flow measurement use M for measured flow, E for extirated flow) and enter the results in the appropriate space. The following example has been provided to show you how to fill in the date.

MSO SAMPLE POINT REFERENCE NUMBERS	>	(201		002		<u>.</u>
DATES ON WHICH SAMPLES WERE COLLECTED	>	7.	8-43	7-8	t. 7-9-43		7
TIMES AT WHICH SAMPLES WERE COLLECTED	>	8:30	un - 5:00 pr	7:00	ATT - BIRD ATT		y.
PARAMETER	LIMIT	RECORD SAMPLE TYPES (G, C, M OR E) AND RESULTS BELOW (SEE INSTRUCTIONS)					UNITS.
FLOW		Ē	4900	F	35000		GPD
CHETICAL OXYGEN DEHAND		c	350		790		M6/L
CADMINA	.69	6	.5₽	c	. +6	l	MG/L

- 10. Report only the results of your analyses. Do not etach copies of taboratory sheets, QAQC information of other documents unless MSD has specifically requested them dryou believe they are essential to the report. However, please note that you must retain all lab sheets and material pertinent to the sampling and analyses for a period of at least 3 years and that MSD may inspect or request copies of these materials during this period.
- 11. If you have no discharge from a sample point during the reporting quarter, write "No Discharge" across the line marked "Flow".
- 12. Review the certification statements in Part III and Initial those that apply to your facility.
- 13. Review conflication statement A in Part IV and Initial it if it applies to your facility.
- 14. Complete the information under cartification statement 8 in Part IV. Sign and date the report. You must be authorized to sign reporting documents in accordance with MSD ORD, 8472, Article X, Section Three, Paragraph B.
- 15. Abach any edditional reports required (See page two of instructions).
- 15. Mail completed report to: METROPOLITAN ST. LOUIS SEWER DISTRICT
 DEPARTMENT OF ENVIRONMENTAL COMPLIANCE.
 10 E. GRAND AVE
 ST. LOUIS, MD 63147

SELF MONITORING REPORT INSTRUCTIONS PAGE 2

ADDITIONAL REPORTS

in addition to quarterly self monitoring reports, the General and Special Conditions of your permit require that MSD be advised of certain events or changes at your facility. This is a reminder of those reporting requirements. Please review your permit carefully for the specifics of any of these requirements which may apply to you.

GENERAL CONDITION REPORTING REQUIREMENTS

- if you monitor pH or temperature continuously at any discharge point, you must include, with each quarterly self-monitoring report, a summary of pH or temperature excutsions for each month in the quarter. See General Condition 1.A.7 is your permit.
- 2. If any sampling, using approved methods, indicates a violation of any permit limitation, MSD must be notified within one business day of your becoming aware of the violation. In addition you must resample the discharge and the results of resampling must be submitted to MSD within 30 days of your becoming aware of the violation. See General Condition i.A.10 in your permit.
- Any significant new or increase discharge must be reported at least 10 business days prior to the planned increase or addition.
 See General Condition I.B.2 in your permit.
- 4. Any problem discharge must be reported to MSD immediately by talephone and a written report submitted within 5 business days. See General Condition LC2 in your permit.
- 5. Any anticipated bypass of pretreatment facilities must be reported to MSD in advance. See General Condition I.D in your permit.

SPECIAL CONDITION REPORTING REQUIREMENTS

§L

II.

- If any of the extegorical imbations in your permit are based on production rates, a report on the production rates for each regulated process must accompany each quantity self monitoring report.
- If any of the categorical antitations in your permit have been calculated using the Combined Wastestream Formula (CWF), any
 conditions which may change the calculated limitations must be reported to MSD at least 10 business days prior to the change.
- if your permit contains a schedule of compliance, reports under that schedule must be submitted no later than 14 business days after each date in the schedule.
- 5. If you plan to divert any wastewater from an existing NPDES discharge point to the District's system, you must notify MSO at least 10 business days prior to the planned charge.

OTHER INFORMATION REQUIREMENTS

- 1. If your permit waives monitoring at any sample point specified in your permit, or at any connection point not specified as a sample point in your permit, you must advise MSD any time the character of the waste discharge at any such point changes.
- 2. If your permit waives maniforing at any inactive connection points, you must advise MSD prior to activating any such point.

METROPOLITAN ST. LOUIS SEWER DISTRICT INDUSTRIAL USER SELF MONITORING REPORT

PLEASE READ THE INSTRUCTIONS BEFORE COMPLETING THIS REPORT

ART I: IDENTIFY	ING INFORMATION	l						
ompany Name:								
ermit No:			<u></u>					
remise Address:							· · · · · · · · · · · · · · · · · · ·	
Monitoring Period:	□(JAN-MAR)		APR-JUNE)	□(.	JULY-SEP	T) į	□(0	CT-DEC)
Samples Collected By: _	_ 		, , , , , , , , , , , , , , , , , , ,		· · · · · · · · · · · · · · · · · · ·			
malyses Performed By:				<u> </u>				
ART II: ANALYTI	CAL RESULTS OF	SELF MO	NITORING					
MSO SAMPLE POINT REFEREN	CE NUMBERS	_>						1 45E -
DATES ON WHICH SAMPLES W		H	• • •	1		-		1 2
TIMES AT LOUIS SAMPLES -	, —:	I.						
			RECORD SAMPLE					
PARAMETER	! L	TIMI.	6=grab, \$=compo	site, Mannes	sured flow,	E=est	imated flow	UNITS
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You must complete and sign the certification statements on the reverse side.

PART III: SPECIAL CERTIFICATION STATEMENTS

INDUSTRIAL USER SELF MONITORING REPORT PAGE 2

permit ar	In the special conditions contained in your discharge permit you may be required to certify one or more of the following. Please review your and PLACE YOUR INITIALS IN THE BOXES NEXT TO THOSE CERTIFICATIONS WHICH ARE APPLICABLE TO YOUR FACILITY. If your contains no Special Conditions, then none of the certifications in PART III apply to you. GO ON TO PART IV.
٨	If your permit special conditions waive monitoring at any sample point(s) specified in your permit, you are required to make the following certification:
	I certify, since the last discharge monitoring report, there has been no change in the character of the wastes discharged at sampling point(s)
9.	If your permit special conditions waive monitoring at active connection points which are not specified as sample points in your permit, you are required to make the following certification:
	centify, since the last discharge monitoring report, there has been no change in the character of wastes discharged at these active connection points which are not specified in my permit.
C.	if your permit special conditions waive monitoring at inactive connection points, you are required to make the following certification. I cartify, since the permit issue date, there has been no change in the status of connection points identified as tractive. These points remain inactive and no discharge occurred during the period covered by this report.
D.	If your permit special conditions authorize grab sample collection in lieu of composite sampling at any sample point(s), you are required to make the following cardication:
 .	perify the grab sample results in this report accurately represent our average delay discharge at sample political
Ē	If your permit special conditions prohibit discharge of wastes which are subject to certain estagorical pretreatment standards, you are required to make the following certification:
	I certify, since the fast discharge monitoring report, there has been no discharge of wastes which are subject to pre-treatment atandards in 40 CFR
- .F.	Discharges subject to Pharmaceutical Categorical Standards (40 CFR 439) can be exempted from limitations and monitoring for Total Cyanide at the Pharmaceutical sample point(s) subject to the following certification: cartify, since the last discharge monitoring report, cyanide has not been used or generated in any pharmaceutical manufacturing process subject to Categorical Standards in 40 CFR 439.
G.	Discharges Subject to Categorical Standards for Electropteting (40 CFR 413), Metal Finishing (40 CFR 433) or Electrical & Electronic Components (40 CFR 469) can be exampted from TTO monitoring only at the Electroplating, Metal Finishing or Electrical & Electronic Components sample point(s) subject to the following certification:
	Based on my inquiry of the person or persons directly responsible for managing compliance with the permit firmtation for total trace—organics (FTC),—certify that to the best of my knowledge and best, no dumping of concentrated toxic organics into the wastewaters has occurred alnow filing the text discharge monitoring report. I further certify that this facility is implementing the text organic management plan submitted to MSD.
PART	entropy of the first of the fir
	the box for statement A if it applies to you. Everyone must complete the information under statement 9 and sign this report.
A	Discharges at sample points subject only to MSD Ordinance limits can be exampled from TTO monitoring subject to the following certification: In lieu of monitoring for TTO at sample point(s)
	In lieu of monitoring for TTO at sample point(s)
₿.	DISCHARGE MONITORING REPORT CERTIFICATION
design who n	y under penalty of Law that this document and all attachments were prepared under my direction or supervision in accordance with a system ned to assume that qualified personnel property gather and evaluate the information submitted. Bused on my inquiry of the person or persons raisego the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge eliat, titue, accurate, and complete. I am aware that there are significent penalties for submitting false information; including the possibility of final representation to knowing violations.
	or type . name of signing . official
Tale:	Telephone:
Signa	uture:Date:

Missouri Department of Natural Resources NPDES Permit No. MO-0112771 STATE OF MISSOURE

DEPARTMENT OF NATURAL RESOURCES

service and appropriate

May 20, 2005

Bridgeton Landfill, LLC 13570 St. Charles Rock Road Bridgeton, MO 63044

Dear Permittee:

Pursuant to the Federal Water Poliution Control Act, under the authority granted to the State of Missouri and in compliance with the Missouri Clean Water Law, we have issued and are enclosing your State Operating Permit to discharge from Bridgeton Landfill Authority.

Please read your permit and attached Standard Conditions. They contain important information on monitoring requirements, effluent limitations, sampling frequencies and reporting requirements.

Monitoring reports required by the special conditions must be submitted on a periodic basis. Copies of the necessary report forms are enclosed and should be mailed to the regional office listed below. Please contact that office for additional forms.

This permit is both your Federal Discharge Permit and your new State Operating Permit and replaces all previous State Operating Permits issued for this facility under this permit number. In all future correspondence regarding this facility, please refer to your State Operating Permit number and facility name as shown on page one of the permit.

If you have any questions concerning this permit, please do not besitate to contact the St. Louis Regional Office at 7545 S. Lindbergh, Suite 210, St. Louis, MO 63125 (314) 416-2960.

Sincerely,

ST. LOUIS REGIONAL OFFICE

Mohamad Alfialab Regional Director

MA:

Enclosure

c: Water Pollution Control Program

STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In comphance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, bereinniter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92rd Congress) as amended.

Permit No

MO-0112771

Owner:

Bridgeton Landfill, LLC

Address:

13570 St. Charles Rock Road, Bridgeton, MO

Continuing Authority.

Address:

Same as above

Same as above

Facility Name:

Bridgeton Landfill Authority

Facility Address:

13570 St. Charles Rock Road, Bridgeton, MO 63088

Logal Description: Latitude/Longitude: See page 2 See page 2

Receiving Stream:

Unnamed Tributary to Fee Fee Creek (D)

First Classified Stream and ID:

Fee Fee Creek (P) (01705)

USGS Basia & Sub-watershed No.:

(10300200-180001)

is authorized to discharge from the facility described herein, in accordance with the offluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

See page 2

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System: it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051 6 of the Law.

March 22,

May 20, 2005

Effective Date

Revised

Doyle Childers, Director, Department of Natural Resources Executive Secretary, Clean Water Commission

March 21, 2007

Espiration Date MODEL (SALED) 18-99

Page 2 of 6 Permit No. MO-0112771

FACILITY DESCRIPTION (continued)

Outfall #001 - Landfill (Demolition)/Transfer Station - SIC #4953

Storm water runoff.

Actual flow is dependent upon precipitation.

Legal Description: SW %, NE %, SW %, Sec. 34 (proj.), T47N, R5E, St. Louis County

Latitude/Longitude:

+3846164/-09026372

Outfall #002 - Landfill (Sanitary) - SIC #4953

Eliminated

Legal Description: SE %, NE %, Sec. 34 (proj.), T47N, R5E, St. Louis County Latitude/Longitude: +3846141/-09026280

Outfall #003 - Landfill (Sanitary & Demolition)/Concrete Plant/transfer station-SIC #4953 Storm water runoff/retention basin.

Actual flow is dependent upon precipitation.

Legal Description: SE %, NW %, NE %, Sec. 3 (proj.), T46N, R5E, St. Louis County +3845520/-09026534

Outfall #004 - Landfill (Sanitary & Demolition)/Concrete Plant - SIC #4953

Storm water runoff/retention basin.

Actual flow is dependent upon precipitation.

Legal Description: NW %, NE %, Sec. 3 (proj.), T46N, R5E, St. Louis County Latitude/Longitude: +3846165/-09026313

Outfall #005 - Landfill (Sanitary & Demolition)/Concrete Plant - SIC #4953

Storm water runoff.

Actual flow is dependent upon precipitation.

Legal Description: SE %, NW %, Sec. 3 (proj.), T46N, R5E, St. Louis County Latitude/Longitude: +3845563/-09027140

Outfall #006 - Landfill (Sanitary & Demolition)/Concrete Plant - SIC #4953

Storm water runoff.

Actual flow is dependent upon precipitation.

Legal Description: SW %, SE %, Sec. 34 (proj.), T47N, R5E, St. Louis County Latitude/Longitude: +3846320/-09026539

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

PAGE NUMBER 3 of 6

PERMIT NUMBER MO-0112771

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall use controlled, limited and monitored by the permittee as specified below:

	- '	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS		
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	YJIAC MUMIKAM	WEEKLY AVERAGE	MONTHLY AVERAGE		APLE YPE	
Outfalls #001, #003, #004, #005, #006							
£jow	MGD	•		*	instantane once/quarter** esti	,	
Rainfall	inches	*		*	daily measurement	***	
BETX	mg/L	0.75	}	0.75	once/quarter** g	rab	
Biochemical Oxygen Demand,	mg/Ľ	60	l 	45	once/quarter**	grab	
Chemical Oxygen Demand	mg/L	120		90	once/quarter** g	jrab	
Total Suspended Solids	mg/L	80		60	once/quarter**	grab	
Settleable Solids	mL/L/hr	1.5		1.0	once/quarter**	grab	
Total Dissolved Solids	mg/L	*		+	once/quarter**	grab	
Conductivity (Specific Conductance)	micromhos /cm 25° C	*		*	once/quarter**	grab	
Chloride Plus Sulfates	mg/L	1000		*	once/quarter**	grab	
Tron, Total Recoverable	mg/l	*		*	once/quarter**	grab	
pH - Units	SU	****	<u> </u>	****	once/quarter**	grab	

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE October 28, 2005. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Part I STANDARD CONDITIONS DATED October 1, 1980 AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

MO 780-0918 (891)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

PAGE NUMBER 4 of 6

PERMIT NUMBER MO-0112771

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

		FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	מדומט	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfalls #001, #003, #004, #005, #006			_			
Calcium	mg/L	*		*.	once/year*****	grab
Fluoride	μg/L	+		*	once/year*****	grab
Total Hardness	μg/L	4		*	once/year*****	grab
Barium, Total Recoverable	μg/L	*	ĺ	+	once/year*****	grab
Boron, Total Recoverable	μg/L	4	ļ	*	once/year*****	grab
Cadmium, Total Recoverable	μg/L	*			once/year*****	grab
Chromium, Total Recoverable	μg/ L	*			once/year*****	grab
Cobalt, Total Recoverable	μg/L	*		*	once/year*****	grab
Sodium, Total Recoverable	μg/L	*		*	once/year*****	grab
Ammonia as N	mg/L	*****		****	once/year*****	gnab
Nitrate & Nitrite as N	mg/L				once/year*****	grab
Phosphorus, Total Recoverable	mg/L	*		•	once/year*****	grab
Mercury, Total Recoverable	μց/⊑		Ì		once/year*****	grab
Arsenic, Total Recoverable	μg/L			*	once/year*****	grab
Lead, Total Recoverable	μg/L	*		•	once/year*****	grab
Selenium, Total Recoverable	μg/L				once/year*****	grab
Silver, Total Recoverable	μg/L	*	}		once/year*****	grab
Manganese, Total Recoverable	μg/L	+		*	once/year*****	grab
Magnesium, Total Recoverable	μg/L	*		*	once/year*****	grab
Zinc, Total Recoverable	μg/L	*		*	once/year****	grab
Antimony, Total Recoverable	μg/L	*		*	once/year*****	grab
Beryllium, Total Recoverable	μg/L			*	once/year*****	grab
Nickel, Total Recoverable	μg/L	*		*	once/year*****	grab
Sulfate	mg/L				once/year*****	grab
Thallium, Total Recoverable	μg/L	*		•	once/year*****	grab
Total Organic Carbon	mg/L	*	1	*	once/year*****	grab
Vanadium, Total Recoverable	μg/L	+		*	once/year*****	grab
Oil & Grease	mg/L	15		10	once/year*****	grab

MONITORING REPORTS SHALL BE SUBMITTED ANNUALLY; THE FIRST REPORT IS DUE October 28, 2005. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED PART I STANDARD CONDITIONS DATED OCTOBER 1, 1980 AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- ** Sample once per quarter in the months of March, May, September & November.
- *** Grab samples shall be collected during a rainfall event, when there is runoff from the landfill site. The sample shall be collected no later than one hour after runoff begins.
- **** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.
- ***** The discharge shall not exceed the appropriate values in Table B 10 CSR 20, 7.031.
- ***** Samples to be taken in September.

C. SPECIAL CONDITIONS

- This permit may be reopened and modified, or alternatively revoked and reissued, to:
 - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
 - (b) Incomporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
 - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

- Report as no-discharge when a discharge does not occur during the report period.
- Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
 - (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 $\mu g/L$) for acrolein and acrylonitrile; five hundred micrograms per liter (500 $\mu g/L$) for 2.5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
 - (4) The level established in Part A of the permit by the Director.
- (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.
- 4. All design and operating specifications and all Waste Management Program approval conditions pertaining to water quality are hereby made a part of this permit and shall apply throughout the life of this permit without regard to other conditions, permits, occurrences, etc.

C. SPECIAL CONDITIONS (continued)

- 5. This permit does not allow the discharge of storm water that has contacted the open face of the landfill. This permit does not allow the discharge of untreated leachate. All leachate shall be handled in accordance with the <u>Solid Waste Disposal Area</u>
 Operating Permit, Report of Approval of Plans and Specifications (with conditions).
- 6. All discharges shall comply with the Missouri Water Quality Standards, 10 CSR 20, 7.031, Section (3)(C), which states "Waters shall be free from substance in sufficient amounts to cause unsightly color or turbidity...", and Section (4)(G), which states "Water contaminants shall not cause or contribute to turbidity or color that will cause substantial visible contact with the natural appearance of the stream...".
- 7. All activities performed to control erosion on the landfill site (seeding, mulching, terracing, etc.) shall be described and submitted along with the second quarter and fourth quarter Discharge Monitoring Reports. If no erosion controls are undertaken, indicate so on the reports.
- Provide sediment and erosion control sufficient to prevent or control pollution of storm water runoff.
- 9. If truck emptying or dumping and washing concrete materials is done on site, provide sediment control for dumping of residual concrete and washdown waters in such a way as to meet the limitations of this permit. A construction permit would need to be obtained from the department before beginning construction of treatment structures. Concrete or untreated washdown water shall not be introduced directly into waters of the state.
- 10. Prevent the spillage or loss of fluids, oil, grease, gasoline, etc. from vehicle and equipment maintenance and repair activities and thereby prevent the contamination of storm water from these substances.
- 11. All fueling facilities present on the site shall adhere to applicable federal and state regulations concerning underground storage, above ground storage, and dispensers, including spill prevention, control and counter measures.
- 12. Store all paint, paint solvent, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) so that these materials are not exposed to the storm water. Provide spill prevention, control, and/or management sufficient to prevent any spills of these pollutants from entering a water of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater.

STANDARD CONDITIONS FOR NPDES PERMITS ISSUED BY

THE MISSOURI DEPARTMENT OF NATURAL RESOURCES MISSOURI CLEAN WATER COMMISSION

Revised October 1, 1980

PART I - GENERAL CONDITIONS SECTION A - MONITORING AND REPORTING

Representative Sampling

- a. Samples and measurements taken as required herein shall be representative of the nature and volume, respectively, of the monitored distribute. All samples shall be taken at the outfall(s), and unless specified, before the effluent joins or is diluted by any other body of water or substance.
- b. Monuming results shall be recorded and reported on furns provided by the Department, postmarked no later than the 28th day of the month following the completed reporting period. Signed copies of these, and all other reports required herein, shall be submitted to the respective Department Regional Office, the Regional Office address is indicated an the cover letter transmitting the permit.

2 Schedule of Compliance

No later than four-teen (14) calendar days following each date identified in the "Schedule of Compliance", the permittee shall submit to the respective Department Regional Office as required therein, either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the pro-bability of meeting the next scheduled requirements, or if there are no more scheduled requirements, when such noncompliance will be corrected. The Regional Office address is indicated in the cover letter transmitting he permit.

3. Definitions

Definitions as set forth in the Missouri Clean Water Law and Missouri Clean Water Commission Definition Regulation 10 CSR 20-2.010 shall apply to terms used herein.

4. Test Procedure:

Test procedures for the analysis of poliutant shall be in accordance with the Missouri Clean Water Commission Effluent Regulation 10 CSR 20-7015.

5. Recording of Results

- For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:
 - (i) the desic, exact place, and time of sampling or measurements;
 - the individual(s) who performed the sampling or measurements;
 - (iii) the date(s) analyses were performed;
 - (iv) the individual(s) who performed the analyses;
 - (v) the amplytical techniques or methods used; and
 - (vi) the results of such analyses.
- b. The Federal Clean Water Act provides that any person who falsifies, tempers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six (6) months per violation, or both.
- Calculations for all limitations which require averaging of measurements shall utilize an arithmetic meen unless otherwise specified by the Director in the permit.

6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Monitoring Report Form. Such increased frequency shall also be indicated.

7 Records Retention

The permittee shall rettin records of all monutaring information, including all calibration and maintenance records and all original strip chart recording for continuous monitoring instrumentation, cepies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

SECTION B - MANAGEMENT REQUIREMENTS

1. Change in Discharge

- a. All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant not authorized by this permit or any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.
- b. Any facility expansions, production increases, or process modifications which will result in new, different, or increased discharges of pollutants shall be reponted by submission of a new NPDES application at least sixty (60) days before each such changes, or, if they will not violate the effluent limitations specified in the permit, by notice to the Department at least thirty (30) days before such changes.

2. Noncompilance Notification

- a. If, for any reason, the permittee does not comply with or will be unable to comply with any daily maximum effluent limitation specified in this permit, the permittee shall provide the Department with the following information, in writing within five (5) days of becoming aware of such conditions.
 - (i) a description of the discharge and cause of noncompliance, and
 - (ii) the period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent 'recurrence of the noncomplying discharge.
- b. Twenty-four hour reporting. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally with 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided with five (5) days of the time the permittee becomes aware of the circumstances. The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

3. Facilities Operation

Permittees shall operate and maintain facilities to comply with the Missouri Clean Water Law and applicable permit conditions. Operators or supervisors of operations at publicity owned or publicity regulated wastewater treatment facilities shall be certified in accordance with 10 CSR 209.020(2) and any other applicable law or regulation. Operators of other wastewater treatment facilities, water contaminant source or point sources, shall, upon request by the Department, demonstrate that wastewater treatment equipment and facilities are effectively operated and maintained by comperent personnel.

4. Adverse Impact

The permittee shall take all necessary steps to minimize any adverse impact to waters of the state resulting from noncompliance with any effluent limitations specified in this permit or set forth in the Missouri Clean Water Law and Regulations (hereinafter the Law and Regulations), including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

5. Rypassing

- a. Any bypass or shut down of a wastewater treatment facility and tributary server system or any part of such a facility and sewer system that results in a violation of permit limits or conditions is prohibited except:
 - where unavoidable to prevent loss of life, personal injury, or severe property damages; and
 - where mavoidable excessive storm drainage or runoff would catastrophically damage any facilities or processes necessary for compliance with the effluent limitations and conditions of this permit;
 - (iii) where maintenance is necessary to ensure efficient operation and alternative measures have been taken to maintain effluent quality during the period of maintenance
- E. The permittee shall notify the Department in writing of all bypasses or shut down that result in a violation of permit limits or conditions. This section, does not excuse any person from liability, unless such relief is otherwise provided by the statute.

Removed Substances

Solids, sindges, filter backwash, or any other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutants from emering waters of the state unless permitted by the Law, and a permanent record of the date and time, volume and methods of removal and disposal of such substances shall be maintained by the permittee.

7. Power Failures

In order to maintain compliance with the effluent limitations and other provisions of this permit, the permittee shall either:

- in accordance with the "Schedule of Compliance", provide an alternative power source sufficient to operate the wastewater control facilities; or.
- 6. if such alternative power source is not in existence, and no date for its implementation appears in the Compliance Schedule, halt or otherwise control production and all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater council facilities.

8. Right of Entry

For the purpose of inspecting, monitoring, or sampling the point source, water contaminant source, or wastewater treatment facility for compliance with the Ciean Water Law and these regulations, authorized representatives of the Department, shall be allowed by the permittee, upon presentation of credentials and at reasonable times;

- to enter upon permittee's premises in which a point source, water contaminant source, or wastewater treatment facility is located or in which any records are required to be kept under terms and conditions of the permit;
- to have access to, or copy, any records required to be kept under terms and conditions of the permit;
- to inspect arry monitoring equipment or method required in the permit;
- d. to inspect arry collection, treatment, or discharge facility covered under the permit and
- to sample arry wastewater at any point in the collection system or treatment process.

9. Permits Transferable

- a. Subject to Section (3) of 10 CSR 20-6.010 an operating permit may be transferred upon submission to the Department of an application to transfer signed by a new owner. Until such time as the permit is officially transferred, the original permittee remains responsible for complying with the terms and conditions of the existing permit.
- b. The Department, within thirry (30) days of receipt of the application shall notify the new permittee of its intent to revoke and reissue or transfer the permit.

10. Availability of Reports

Exempt for data determined to be confidential under Section 308 of the Act, and the Law and Missouri Clean Water Commission Regulation for Public Participation, Hearings and Notice to Governmental Agencies 10 CSR 20-5.030, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. As required by startute, effluent data shall not be considered confidential. Knowingly making any false statement on any such report shall be subject to the imposition of criminal penalties as provided in Section 204.076 of the Law.

11. Permit Modification

- a. Subject to compliance with statutory requirements of the Law and Regulations and applicable Court Order, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
 - (i) violation of any terms or conditions of this permit or the Law;
 - (ii) having obtained this permit by misrepresentation or failure to disclose fully any relevant facts;
 - (iii) a change in any circumstances or conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge, or
 - (iv) any reason set forth in the Law and Regulations.
- The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance; does not stay any permit condition.

12. Permit Modification - Less Stringent Requirements

If any permit provisions are based on legal requirements which are lessened or removed, and should no other basis exist for such permit provisions, the permit shall be modified after notice and opportunity for a hearing.

13. Civil and Criminal Liability

Except as authorized by statute and provided in permit conditions on "Bypassing" (Standard Condition B-5) and "Power Failures" (Standard Condition B-7) nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

14. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act, and the Law and Regulations. Oil and hazardous materials discharges must be reported in compliance with the requirements of the Federal Clean Water Act.

15. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state statute or regulations

16. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, no does it authorize any injury to private property or any invasion of personal rights, nor any infringement of or violation of federal, state or local laws or regulations.

17. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for a new permit 180 days prior to expiration of this permit.

18. Toxic Pollutant

If a toxic effluent standard, prohibition, or schedule of empiiance is established, under Section 307(a) of the Federal Clean Water Act for a toxic pollutant in the discharge of permittee's facility and such standard is more stringent than the limitations in the permit, then the more stringent standard, pruhibition, or schedule shall be incurporated into the permit as one of its conditions, upon notice to the permittee.

19. Signatory Requirement

All reports, or information submitted to the Director shall be signed (see 40 CFR-122.6).

20. Rights Not Affected

Nothing in this permit shall affect the permitter's right to appeal or seek a variance from applicable laws or regulations as allowed by law.

21. Severability

The provisions of this permit are severable, and if any provisions of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

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Missouri Department of Natural Resources NPDES Permit No. MO-R103310 St. Louis County (WP)
Bridgeton Land fill Stockpile
MO-R103310

DEPARTMENT OF NATURAL RESOURCES

St. Coma Regional Ciffica 2000 War on Food, Same 201 St. Louis, 50 (1932). COM, 201-78-70 FAX (244-101-788).

August 28, 2002

Matt Kingsley, General Mngr. Bridgeton Landfili, L.L.C. 13570 St. Charles Rock Road Bridgeton, MO 63044

Dear Penninee:

Pursuant to the Federal Water Pollution Control Act, under the authority granted to the State of Missouri and in compliance with the Missouri Clean Water Law, we have issued and are enclosing a General State Operating Permit to discharge from Bridgeton Landfill Stockpile.

Monitoring reports that may be required by the special conditions must be submitted on a periodic basis. Copies of the necessary report forms, if required, are enclosed and should be mailed to the St. Louis Regional Office. Please contact this office for additional forms.

This General Permit is both your federal discharge permit and your new state operating permit and replaces all previous state operating permits issued for this facility under the same permit number. In all future correspondence regarding this facility, please refer to your general permit number as shown on page one of your permit.

If you have questions concerning this permit, please do not besitate to call the St. Louis Regional Office at (314)301-7600, 9200 Watson Road, Suite 201. St. Louis, Missouri 63126.

Sincerely,

ST. LOUIS REGIONAL OFFICE

Mohamad Alhalabi, P.E. Regional Director

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Enclosure

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STATE OF MISSOCRI

DEPARTMENT OF NATURAL RESORDED TS

MISSOURICEEAN WATER COMPRISION



MISSOURI STATE OPERATING PERMIT

GENERAL PERMIT

In reprophence with the Missemi Coun Mater have Chapter and R.S. Moons unknown hosematics, the Council of the Count Mater Mathematical and Countries of the Cou

Permit No.: Owner: MO-R103310

Owner's Address:

Bridgeton Landfill, L.L.C. 13570 St. Charles Rock Road

Bridgeton, MO 63044

Operating Authority:

Same

Operating Authority Address: Facility Name:

Same

Facility Address:

Bridgeton Landfill Stockpile 12830 St. Charles Rock Road

Bridgeton, MO 63044

Legal Description:

SW 4, SE 4, Sec. 34, T47N, R5E

St. Louis County

Receiving Stream:

Trib. to Cowmire Creek (U) Missouri River (P) #1604

First Class. & ID#: USGS & Sub Water ID#:

10309200-180-001

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EXCRIPTION SHIPTON

SELECTION

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Construction or land disturbance activity (e.g., clearing, grubbing, excavating, grading, and other activity that results in the destruction of the root zone).

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APPLICABILITY

This general permit authorizes the discharge of storm water and certain non-storm water discharges from land disturbance sites that disturb one (1) or more acres over the life of the project or which is part of a larger common plan of development or sale that will disturb one or more acres over the life of the project. This general permit also authorizes the discharge of storm water and certain non-storm water discharges from smaller projects where the department has exercised its discretion to require a permit [10 CSR 20-6.200 (1) (B)].

A Missouri State Operating Permit that specifically identifies the project must be issued before any site vegetation is removed or the site disturbed.

Any site owner/operator subject to these requirements for storm water discharges and who disturbs land prior to permit issuance from MDNR is in violation of both State and Federal laws.

- 2. This permit authorizes non-storm water discharges from the following activities provided that these discharges are addressed in the permittee's specific Storm Water Pollution Prevention Plan (SWPPP) required by this general permit:
 - De-watering activities if there are no contaminants other than sediment present in the discharge,
 - b. Flushing water hydrants and potable water lines,
 - Water only (i.e., without detergents or additives) rinsing of streets and buildings, and,
 - d. Site watering to establish vegetation.
- This permit does not apply to storm water discharges within 1000 feet of:
 - a. Streams identified as a losing stream*,
 - b. Streams or lakes listed as an outstanding national or state resource water*,
 - c. Reservoirs or lakes used for public drinking water supplies (class L1)+, or
 - d. Streams, lakes or reservoirs identified as critical habitat for endangered species.
- 4. This permit does not apply to storm water discharges:
 - a. Within 100 feet of a permanent stream (class P) or major reservoir (class L2)*, or
 - b. Within two stream miles upstream of biocriteria reference locations*.
- 5. This permit does not apply to storm water discharges where:
 - a. Any of the disturbed area is defined as a wetland (Class W)*, or
 - b. The storm water discharges to a sinkhole or other direct conduit to groundwater.
- 6. This general permit does not authorize the placement of fill materials in flood plains, the obstruction of stream flow, directing storm waters across private property not owned or operated by the permittee, or changing the channel of a defined drainage course. This general permit is intended to address only the quality of the storm water runoff and minimize off-site migration of sediments and other water contaminants.
- 7. This general permit does not authorize any discharge to waters of the state of sewage, wastewaters, or pollutants such as:
 - a. Hazardous substances o
 - r petroleum products from an on-site spill or improper handling and disposal practices,
 - b. Wash and/or rinse waters from concrete mixing equipment including ready mix concrete trucks unless such discharges are adequately treated and addressed in the Storm Water Pollution Prevention Plan, or
 - c. Wastewater generated from air pollution control equipment or the containment of acrubber water in lined ponds, or
 - d. Domestic wastewaters, including gray waters.
- Identified or described in 10 CSR 20, Chapter 7. These regulations are available at many libraries and may be purchased from MDNR by calling the Water Pollution Control Program.

APPLICABILITY (continued)

- s. MDNR reserves the right to deny coverage under this general permit to applicants for storm water discharges from land disturbance activities at sites that have contaminated soils that will be disturbed by the land disturbance activity or where such materials are brought to the site to use as fill or borrow. Such activities are normally covered by a site specific permit.
- 9. If at any time the Missouri Department of Natural Resources determines that the quality of waters of the state may be better protected by requiring the owner/operator of the permitted site to apply for a site specific permit, the department may require any person to obtain a site specific operating permit [10 CSR 20-6.010 (13) and 10 CSR 20-6.200(5)].

The department may require the permittee to apply for and obtain a site specific or different general permit if:

- a. The permittee is not in compliance with the conditions of this general permit;
- b. The discharge no longer qualifies for this general permit due to changed site conditions and regulations; or
- c. Information becomes available that indicates water quality standards have been or may be violated.

The permittee will be notified in writing of the need to apply for a site specific permit or a different general permit. When a site specific permit or different general permit is issued to the authorized permittee, the applicability of this general permit to the permittee is automatically terminated upon the effective date of the site specific or different general permit, whichever the case may be. The permittee shall submit the appropriate Forms to the department to terminate the permit that has been replaced.

- 10. Any owner/operator authorized by a general permit may request to be excluded from the coverage of the general permit and apply for a site specific permit (10 CSR 20-6.010 (13) and 10 CSR 20-6.200(5)].
- 11. This permit is not transferable to other owners or operators unless all of the conditions listed in the "Transfer of Ownership" section are met.

EXEMPTIONS PROM PERMIT REQUIREMENTS

- Facilities that discharge all storm water runoff directly to a combined sewer system are exempt from storm water permit requirements.
- Linear, strip or ribbon construction, or maintenance operations as identified in 10 CSR 20-6.200 (1)(B), where water quality standards are not exceeded.
- 3. Sites that disturb less than one acre of total land area that are not part of a common plan or sale and that do not cause any violations of water quality standards and are not otherwise designated by the department as requiring a permit.
- 4. Agricultural storm water discharges and irrigation return flows. For purposes of this permit, land disturbance activities from Animal Feeding Operations (AFO) are not considered an agricultural activity and therefore not included in this exemption.

REQUIREMENTS AND GUIDELINES

Note: These requirements do not supersede nor remove liability for compliance with county and other local ordinances.

- 1. The discharge of storm water from these facilities shall not cause a violation of the state water quality standards, 10 CSR 20-7.031, which states, in part, that no water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
 - a. Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
 - b. Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
 - c. Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses:
 - d. Waters shall be free from substances or conditions in sufficient amounts to have a harmful effect on human, animal or aquatic life.
 - There shall be no significant human health hazard from incidental contact with the water;
 - f. There shall be no acute toxicity to livestock or wildlife watering;
 - g. Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
 - h. Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles, or equipment and solid waste as defined in Missouri's Solid Waste Law, Section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to Section 260.200-260.247.
- Good howsekeeping practices shall be maintained on the site to keep solid waste from entry into waters of the state.
- 3. All fueling facilities present on the site shall adhere to applicable federal and state regulations concerning underground storage, above ground storage, and dispensers, including spill prevention, control and counter measures.
- 4. Substances regulated by federal law under the Resource Conservation and Recovery Act (RCRA) or the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) that are transported, stored, or used for maintenance, cleaning or repair shall be managed according to the provisions of RCRA and CERCLA.
- 5. An individual shall be designated by the permittee as responsible for environmental matters. Staff of the permitted facility shall inspect any structures that function to prevent pollution of storm water or to remove pollutants from storm water and of the facility in general to ensure that any Best Management Practices are continually implemented and effective.
- 6. All paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) shall be stored so that these materials are not exposed to storm water. Sufficient practices of spill prevention, control, and/or management shall be provided to prevent any spills of these pollutants from entering a water of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater.

REQUIREMENTS AND GUIDELINES (continued)

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- 7. The primary requirement of this permit is the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) that
 - a. Incorporates required practices identified below,
 - b. Incorporates erosion control practices specific to site conditions, and
 - c. Provides for maintenance and adherence to the plan.

For new applicants, before removing any site vegetation, disturbing earth, or submitting an application, the permittee shall develop a SWPPP that is specific to the land disturbance activities at the site. This plan must be developed before a permit can be issued and made available as specified under RECORDS. However, the plan should not be submitted to the department unless specifically requested.

The permittee shall fully implement the provisions of the SWPPP required under this part as a condition of this general permit throughout the term of the land disturbance project.

The purpose of the SWPPP is to ensure the design, implementation, management, and maintenance of Best Management Practices (BMPs) in order to reduce the amount of sediment and other pollutants in storm water discharges associated with the land disturbance activities; comply with the Missouri Water Quality Standards; and ensure compliance with the terms and conditions of this general permit.

The permittee shall select, install, use, operate, and maintain the BMPs in accordance with the concepts and methods described in the following documents:

- a. Storm Water Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices, (Document number EPA 832-R-92-005) published by the United States Environmental Protection Agency (USEPA) in 1992. This manual is available at The USEPA internet site: http://cfpubl.epa.gov/npdes/home.cfm?program id=6m (searching under Publications/Policy and Guidance Documents).
- b. Protecting Water Quality: A field guide to erosion, sediment and storm water best management practices for development sites in Missouri, published by the Missouri Department of Natural Resources in November 1995.

The permittee is not limited to the use of these guidance manuals. Other commonly accepted publications may be used for guidance and must be referenced in the SWPPP if used. In addition, the permittee is not limited to the use of BMP identified in these manuals. However, any alternative BMPs should be justified by site conditions and described in the SWPPP.

- SWPPP Requirements: The following information and practices shall be provided for in the SWPPP.
 - a. <u>Site Description</u>. In order to identify the site, the SWPPP shall include the facility and outfall information provided in the Application Form. The SWPPP shall have sufficient information to be of practical use to contractors and site construction workers to guide the installation and maintenance of BMPs.
 - b. <u>Drainage areas</u>: The following guidelines are for protection of drainage areas and shall be addressed in the SWPPP.
 - Clearing and grubbing within 50 feet of a defined drainage course should be avoided.
 - ii. Where changes to defined drainage courses occur as part of the project, clearing and grubbing within 50 feet of the defined drainage course should be delayed until all materials and equipment necessary to protect and complete the drainage change are on site.
 - iii. Changes to defined drainage courses shall be completed as quickly as possible once the work has been initiated. The area impacted by the land disturbance of the drainage course change is to be revegetated or protected from erosion as soon as possible. Areas within 50 feet of defined drainage ways should be recontoured as needed and revegetated, seeded, or otherwise protected within five (5) working days after grading has ceased.

REQUIREMENTS AND GUIDELINES (continued)

- SWPPP Requirements (continued)
 - b. Drainage areas (continued)
 - iv. Work in defined drainages or water courses may require a permit from the U.S. Army Corps of Engineers pursuant to Section 404 of the federal Clean Water Act.
 - c. <u>Description of Best Management Practices</u>: The SWPPP shall include a description of the BMPs that will be used at the site. The SWPPP shall provide the following general information for each BMP which will be used one or more times at the site:
 - i. Physical description of the BMP,
 - Site and physical conditions that must be met for effective use of the BMP.
 - iii. BMP installation/construction procedures, including typical drawings, and
 - iv. Operation and maintenance procedures for the BMP.

The SWPPP shall provide the following information for each specific instance where a BMP is to be installed:

- i. Whether the BMP is temporary or permanent,
- ii. Where, in relation to other site features, the BMF is to be located,
- iii. When the BMP will be installed in relation to each phase of the land disturbance procedures to complete the project, and
- iv. What site conditions must be met before removal of the BMP if the BMF is not a permanent BMP.
- d. <u>Disturbed Areas:</u> Slopes for disturbed areas must be defined in the SWPPP. Where soil disturbing activities cease in an area for more than 14 days, the disturbed areas shall be protected from erosion by stabilizing the area with mulch or other similarly effective erosion control BMPs. If the slope of the area is greater than 3:1 or if the slope is greater than 3% and greater than 150 feet in length, then the disturbed areas shall be protected from erosion by stabilizing the area with mulch or other similarly effective erosion control BMPs if activities cease for more than seven days. These requirements do not apply to the slopes of a sedimentation basin or the areas that clearly drain thereto.
- e. <u>Installation</u>: The permittee shall ensure the BMPs are properly installed at the locations and relative times specified in the SWPPP. Peripheral or border BMPs to control runoff from disturbed areas shall be installed or marked for preservation before general site clearing is started. Storm water discharges from disturbed areas, which leave the site, shall pass through an appropriate impediment to sediment movement, such as a sedimentation basin, sediment traps, silt fences, etc. prior to leaving the land disturbance site. Bench marks shall be referenced for proper installation and operation and maintenance of drainage course changes.
- f. Temporary and Permanent Non-Structural BMPs: The SWPPP shall require existing vegetation to be preserved where practical. The time period for disturbed areas to be without vegetative cover is to be minimized to the extent practical.

Examples of non-structural BMPs which the permittee should consider specifying in the SWPPP include: preservation of trees and mature vegetation, protection of existing vegetation for use as buffer strips (especially along drainage courses), mulching, sodding, temporary seeding, final seeding, geotextiles, stabilization of disturbed areas, preserving existing stream channels as overflow areas when channel straightening or shortening is allowed, soil stabilizing emulsions and tackifiers, mulch tackifiers, stabilized site entrances/exits, and other appropriate BMPs.

REQUIREMENT'S AND GUIDELINES (continued)

- SWPPP Requirements (continued)
 - Temporary and Permanent Structural BMPs: Examples of structural BMPs that the permittee should consider specifying in the SWPPP include: diverting flows from undisturbed areas away from disturbed areas, silt (filter fabric or straw bale) fences, earthen diversion dikes, drainage swales, sediment traps, rock check dams, subsurface drains (to gather or transport water for surface discharge elsewhere), pipe slope drains (to carry concentrated flow down a slope face) level spreaders (to distribute concentrated flow into sheet flow), Storm drain inlet protection and outlet protection, reinforced soil retaining systems, gabions, temporary or permanent sediment basins, and other appropriate BMPs.
 - h. Sedimentation Basins: The SWPPP shall require a sedimentation basin for each drainage area with 10 or more acres disturbed at one time. The sediment basin shall be sized to contain 0.5 inch of sediment from the drainage area and to be able to contain a 2-year, 24-hour storm. The sediment shall be cleaned out of the basin and otherwise maintained as needed until the drainage area is stabilized. This requirement does not apply to flows from areas where such flows are properly diverted around both the disturbed areas and the sediment basin. Discharges from the basin shall not cause scouring of the banks or bottom of the receiving stream.

Where use of a sediment basin of this size is impractical, the SWPPP shall evaluate and specify other similarly effective BMPs to be employed to control erosion and sediment delivery. The SWPPP shall require the basin be maintained until final stabilization of the area served by the basin.

The SWPPP shall require both temporary and permanent sedimentation basins to have a stabilized spillway to minimize the potential for erosion of the spillway or basin embankment.

- Additional Site Management BMPs: The SWPPP shall address other BMPs, as required by site activities, to prevent contamination of storm water runoff. Such BMPs
 - Solid and hazardous waste management including: providing trash containers and regular site clean up for proper disposal of solid waste such as scrap building material, product/material shipping waste, food containers, and cups; and providing containers and proper disposal of waste paints, solvents, and cleaning compounds, etc.;

 - ii. Provision of portable toilets for proper disposal of sanitary sewage; iii. Storage of construction materials away from drainage courses and low areas; and
 - iv. Installation of containment berms and use of drip pans at petroleum product and liquid storage tanks and containers.
- Permanent Storm Water Management: The SWPPP shall include a description of the measures that will be installed during land disturbance to control pollutants in storm water discharges that will occur after land disturbance activity has been completed. These could include drainage channels or systems; outlet control devices, detention basins, oil water separators, catch basins, etc. This general permit does not require the permittee or the permittee's contractors to operate or maintain these measures beyond the date of MDNR's Letter of Termination.
- Amending/Updating the SWPPP: The permittee shall amend and update the SWPPP as appropriate during the term of the land disturbance activity. The permittee shall amend the SWPPP, at a minimum, whenever the:
 - Design, operation, or maintenance of BMPs is changed;
 - Design of the construction project is changed that could significantly affect b. the quality of the storm water discharges;
 - Permittee's inspections indicate deficiencies in the SWPPP or any BMP; С.
 - MDNR notifies the permittee of deficiencies in the SWPPP:
 - SWPPP is determined to be ineffective in significantly minimizing or controlling erosion and sedimentation (e.g., there is visual evidence, such as excessive
 - site erosion or excessive sediment deposits in streams or lakes); Total Settleable Solids from a storm water outfall exceed 2.5 ml/L/hr.; or
 - MDDR determines violations of Water Quality Standards may occur or have occurred.

Page 8 of 10 Permit No. MO-R103310

REQUIREMENTS AND GUIDELINES (continued)

10. Site Inspections Reports: The permittee shall ensure the land disturbance site is inspected on a regular schedule and within a reasonable time period (not to exceed 72 hours: following heavy rains. Regularly scheduled inspections shall be at a minimum once per week. For disturbed areas that have not been finally stabilized, all installed BMPs and other pollution coutrol measures shall be inspected for proper installation, operation and maintenance. Locations where storm water leaves the site shall be inspected for evidence of erosion or sediment deposition. Any deficiencies shall be noted in a weekly report of the inspection(s) and corrected within seven calendar days of the inspection report. The permittee shall promptly notify the site contractors responsible for operation and maintenance of BMPs of deficiencies.

A log of each inspection shall be kept. The inspection report is to include the following minimum information: inspector's name, date of inspection, observations relative to the effectiveness of the BMPs, actions taken or necessary to correct deficiencies, and listing of areas where land disturbance operations have permanently or temporarily stopped. The inspection report shall be signed by the permittee or by the person performing the inspection if duly authorized to do so.

11. Proper Operation and Maintenance: The permittee shall at all times maintain all pollution control measures and systems in good order to achieve compliance with the terms of this general permit.

The need to halt or reduce the permitted activity in order to maintain compliance with general permit conditions shall not be a defense to the permittee in an enforcement action.

12. Notification to All Contractors: The permittee shall notify each contractor or entity (including utility crews and city employees or their agents) who will perform work at the site of the existence of the SWPPF and what action or precautions shall be taken while on site to minimize the potential for erosion and the potential for damaging any BMP. If additional land is disturbed or any BMP damaged, then the permittee shall cause to have the disturbance or damage repaired.

OTHER DISCHARGES

- 1. Hazardous Substance and Oil Spill Reporting: Refer to Section B, #14 of Part I of the Standard Conditions that accompany this permit.
- Removed substances: Refer to Section B, #6 of Part I of the Standard Conditions that accompany this permit.
- 3. Change in discharge: In the event soil contamination or hazardous substances are discovered at the site during land disturbance activities, the permittee shall notify MDNR in writing.

SAMPLING REQUIREMENTS AND EFFLUENT LIMITATIONS

- Discharges shall not violate General Water Quality Standards 10 CSR 20-7.031(3).
 Settleable Solids shall not exceed a maximum of 2.5 ml/L/hr. for each storm water outfall.
- 2. There are no regular sampling requirements in this permit. However, the department may require sampling and reporting as a result of illegal discharges, compliance issues, complaint investigations, or other such evidence of off-site contamination from activities at the site. If such an action is needed, the department will specify n writing any additional sampling requirements, including such information as location, extent, and parameters.

RECORDS

- 1. The permittee shall retain copies of this general permit, the SWPPP and all amendments for the site named in the State Operating Permit, results of any monitoring and analysis, and all site inspection records required by this general permit. The permittee shall retain these records at a site which is readily available from the permitted site until final stabilization of a site is achieved. The local office of the permittee, their contractor or consultant is considered to be readily available from the project site if it is located in the same county as the project site. The records shall be accessible during normal business hours. After final stabilization the records may be maintained at the location of the permittee's main office. The records shall be retained for a period of at least three years from the date of the Letter of Termination.
- The permittee shall provide a copy of the SWPPP to MDNR, USEPA, or any local agency
 or government representative if they request a copy in the performance of their
 official duties.
- The permittee shall provide those who are responsible for installation, operation, or maintenance of any BMP a copy of the SWPPP.
- 4. The permittee, their representative, and/or the contractor(s) responsible for installation, operation, and maintenance of the BMPs shall have a current copy of the SWPPP with them when on the project site.

TRANSFER OF OWNERSHIP

1. Individual Lot or Lots: Rederal and Missouri storm water regulations (10 CSR 20-6.200) require a storm water permit and erosion control for one acre or more disturbed as part of a common plan or sale. When individual lots (commercial, industrial, or residential) are sold to an entity for construction (unless sold to an individual for purposes of building their own private residence) are also subject to storm water regulations because they are part of the common sale.

The existing permittee who intends to transfer ownership of a lot or parcel of the overall permitted area is still responsible for the terms of this permit and erosion control on that site unless the new owner applies for and receives a separate Missouri State Operating Permit for storm water discharges from land disturbance activities. If the current permittee is to retain the permit and responsibility for control of sediment and other pollutants at the site, then the owner should obtain a copy of an Individual Lot Certification (ILC) from the lot owner(s). The ILC should be properly completed and signed and retained with the SWPPP.

 Entire Tract: If the entire tract is sold to a single entity, then this permit shall be terminated and the new owner shall submit an application for a new permit immediately.

TERMINATION

This permit may be terminated when the project is stabilized. The project is considered to be stabilized when either perennial vegetation, pavement, buildings, or structures using permanent materials cover all areas that have been disturbed. With respect to areas that have been vegetated, vegetative cover shall be at least 70% of fully established plant density over 100% of the disturbed area.

In order to terminate the permit, the permittee shall notify MDNR by submitting Form H, included with the State Operating Permit. The permittee shall complete Form H and mail it to MDNR at the address noted in the cover letter of this permit.

This general permit will expire five years from the effective date of the permit (see page 1). The issue date is the date the State Operating Permit is issued to the applicant. The expiration date may or may not coincide with the date the authorized project or development is scheduled for completion.

TERMINATION (continued)

If the project or development completion date will be after the expiration date of this reneral permit, then the permittee must reapply to the department for the permit to be e-issued. The permittee will receive notification of the expiration date of the permit before the expiration date listed on page 1 of this permit. In order for the permit to be re-issued, the permittee should submit the appropriate application form(s) at least 180 days before the expiration of the permit if land disturbance activity is expected to continue past the expiration date of this general permit.

If the permittee does not apply for the renewal of this permit, this permit will automatically terminate on the expiration date. Continued discharges from a site that has not been fully stabilized are prohibited beyond the expiration date; unless the permit is reissued or the permittee has filed a timely application for the reissuance of this permit.

DUTY TO COMPLY

The permittee shall comply with all conditions of this general permit. Any noncompliance with this general permit constitutes a violation of Chapter 644, Missouri Clean Water Law, and IC CSR 20-6.200. Noncompliance may result in enforcement action, termination of this authorization, or denial of the permittee's request for renewal.

MAILING ADDRESS

The permittee shall send all written correspondence and forms, which are to be submitted to MDNR to the address listed in the cover letter that accompanies this permit.

STANDARD CONDITIONS FOR NPDES PERMITS ISSUED BY THE MISSOURI DEPARTMENT OF NATURAL RESOURCES MISSOURI CLEAN WATER COMMISSION

Revised October L, 1980

PART I - GENERAL CONDITIONS SECTION A - MONITORING AND REPORTING

1. Representative Sampling

- a Samples and measurements taken as required herein shall be representative of the nature and volume, respectively, of the minimized climbarge. All samples shall be taken at the outfall(s), and unless specified, before the effluent joins or is diluted by any other body of water or substance.
- b. Monitoring, results shall be recorded and reported on forms provided by the Department, postmarked no later than the 28th day of the month following the completed reporting period. Signed copies of these, and all other reports required herein, shall be submitted to the respective Department Regional Office, the Regional Office address is indicated in the cover letter transmitting the permit.

2. Schedule of Compliance

No later than fourteen (14) calendar days following each date identified in the "Schedule of Compliance", the permittee shall submit to the respective Department Regional Office as required therein, either a report of progress or, in the case of specific actions being required by identified dates, a written notice of campliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements, or if there are no more scheduled requirements, when such noncompliance will be corrected. The Regional Office address is indicated in the cover letter transmitting the permit.

J. Definitions

Definitions as set forth in the Missouri Clean Water Law and Missouri Clean-Water Commission Definition Regulation 10 CSR-20-2.010 shall apply to terms used herein.

4. Test Procedur &

Test procedures for the analysis of pollutant shall be in accordance with the Missouri Clean Water Commission Effluent Regulation 10 CSR 20-7015.

5. Recording of Reults

- For each measurement or sample taken pursuant to the requirements
 of this permit, the permittee shall record the following information:
 - (i) the date, exact place, and time of sampling or measurements;
 - the individual(s) who performed the sampling or measurements;
 - (iii) the date(s) analyses were performed;
 - (iv) the individual(s) who performed the analyses;
 - (v) the analytical techniques or methods used; and
 - (vi) the results of such analyses.
- b. The Federal Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by impresentment for not more than six (6) months per violation, or both.
- Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

6. Additional Menitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this normit, using approved analytical methods as specified above, the results of such monitoring shall be included in the taleulation and reporting of the values required to the Monitoring Report Form. Such increased frequency shall also be indicated.

7. Records Recention

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recording for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the data of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

SECTION B - MANAGEMENT REQUIREMENTS

. Change in Discharge

- a. All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant not authorized by this permit or any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.
- b. Any facility expansions, production increases, or process modifications which will result in new, different, or increased discharges of pollutants shall be reported by submission of a new NPDES application at least sixty (60) days before each such clanges, or, if they will not violate the effluent limitations specified in the permit, by notice to the Department at least thirty (30) days before such changes.

2. Noncompliance Notification

- a. If, for any reason, the permittee does not comply with or will be unable to comply with any daily maximum effluent limitation specified in this permit, the permittee shall provide the Department with the following information, in writing within five (5) days of becoming aware of such conditions:
 - (i) a description of the discharge and cause of noncompliance, and
 - (ii) the period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent 'recurrence of the noncomplying discharge.
 - b. Twenty-four hour reporting. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally with 24 hours from the time the permittee becomes aware of the circumstances: A written submission shall also be provided with five (5) days of the time the permittee becomes aware of the circumstances. The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

3. Pacilities Operation

Permittees shall operate and maintain facilities to comply with the Missouri Clean Water Law and applicable permit condutions. Operators of supervisors of operations at publicly owned or publicly regulated wastewater treatment facilities shall be certified in accordance with 10 CSR 209.020(2) and any other applicable law or regulation. Operators of other wastewater treatment facilities, water contaminant source or point sources, shall, upon request by the Department, demonstrate that wastewater treatment equipment and facilities are effectively operated and maintained by competent personnel.

4. Adverse Impact

The permutter shall take all necessary steps to minimize any adverse impact to waters of the state reseating from necessipalized with any effluent limitations specified in this permit of set forth in the Misseuri Clean Water Law and Engulations (therematics the Law and Engulations), including such accelerated of additional recontring as necessary to determine the nature and impact of the necessarying discharge.

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S. Bypassing

- a. Any byposs of shut down of a wastewater treatment facility and inibitary' sever system or any part of such a facility and sower system that results in a violation of permit limits or conditions is prohibited except:
 - where unevoidable to prevent loss of life, personal injury, or severe property damages; and
 - (ii) where unavoidable excessive storm drainage or runoff would catesomphically damage any facilities or processes necessary for compliance with the effluent limitations and conditions of this neuriti.
 - (iii) where maintenance is necessary to ensure efficient operation and alternative measures have been taken to maintain effluent quality during the period of maintenance.
- b. The pertrained shall notify the Department in writing of all bypasses or shut clown that result in a violation of permit limits or conditions. This section does not excuse any person from liability, unless such relief is otherwise provided by the statute.

6. Removed Substances

Solids, sindges, filter backwash, or any other pollutarits removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutarits from entering waters of the state unless permitted by the Law; and a permanent record of the date and time; volume and methods of removal and disposal of such substances shall be maintained by the permittee.

7. Power Failur es

In order to maintain compliance with the effluent limitations and other provisions of this permit, the permittee shall either:

- in accordance with the "Schedule of Compliance", provide an alternative power source sufficient to operate the wastewater control facilities; or.
- if such a ternative power source is not in existence, and no date for its implementation appears in the Compliance Schedule, halt or otherwise e control production and all discharges upon the reduction, loss, or Failure of the primary source of power to the wastewater control facilities.

8. Right of Entry

For the purpose of inspecting, monitoring, or sampling the point source,—water contamiciant source, or wastewater treatment facility for compliance with the Clean. Water Law and these regulations, authorized representatives of the Department, shall be allowed by the permittee, upon presentation of credentials and at reasonable times;

- to enter upon permittee's premises in which a point source, water contaminant source, or wastewater treatment facility is located or in which any records are required to be kept under terms and conditions of the permit;
- to have access to, or copy, any records required to be kept under terms and conditions of the permit;
- to inspect any monitoring equipment or method required in the permit;
- d. to inspect any collection, treatment, or discharge facility covered: under the permit; and
- to sample any wastewater at any point in the collection system or treatment process.

9. Permits Transferable

- a. Subject to Section (3) of 10 CSR 20-6.010 an operating permit may be transferred upon submission to the Department of an application to transfer signed by a new owner. Until such time as the permit is officially transferred, the original permittee remains responsible for complying with the terms and conditions of the existing permit.
- The Department, within thirty (30) days of receipt of the application shall notify the new permittee of its intent to revoke and ressue or transfer the permit.

10. Availability of Reports

Except for data determined to be confidential under Section 308 of the Act, and the Law and Missouri Clean Water Commission Regulation for Public Participation, Hearings and Notice to Governmental Agencies 10 CSR 20-6.020, all reports prepared in accordance with the terms of this point shall be available for public inspection at the offices of the Department. As required by a state, effluent data shall not be considered confidential. Knowingly making any folse statement on any such report shall be subject to the imposition of criminal penalties as provided in Section 204 676 of the laws.

11. Permit Modification

- Subject to comphance with statutory requirements of the Law and Regulations and applicable Court Order, this permit may be modified, suspended, or revoked in whole or impact during its term for cause including, but not limited to, the following:
 - (i) violation of any terms or conditions of this permit or the Law:
 - having obtained this permit by misrepresentation or failure to disclose fully any relevant facts;
 - (iii) a change in any circumstances or conditions that requires either a temporary or permanent reduction or climination of the authorized discharge, or
 - (iv) any reason set forth in the Law and Regulations.
- The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

12. Permit Modification - Less Stringent Requirements

If any permit provisions are based on legal requirements which are lessened or removed, and should no other basis exist for such permit provisions, the permit shall be modified after notice and opportunity for a hearing.

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13: Civit and Criminal Liability

Except as authorized by statute and provided in permit conditions on "Bypassing" (Standard Condition B-5) and "Power Failures" (Standard Condition B-7) nothing in this permit shall be construed to relieve the permittee from civit or criminal penalties for noncompliance.

14. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act, and the Law and Regulations. Oil and hazardous materials discharges must be reported in compliance with the requirements of the Federal Clean Water Act.

15. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or --penalties-established pursuant-to any applicable state statute-or regulations -- --

to, Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, no does it authorize any injury to private property or any invasion of personal rights, nor any infringement of or violation of federal, state or local laws or regulations.

17. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for a new permit 180 days prior to expiration of this permit.

18 ... Tark Poliutants

If a toxic effluent standard, prohibition, or schedule of compliance is established, under Section 307(a) of the Federal Clean Water Act for a toxic pollucant in the discharge of permittee's facility and such standard is more stringent than the limitations in the permit, then the more stringent standard, prohibition, or schedule shall be incorporated into the permit as one of its conditions, upon notice to the permittee.

Signatory Requirement

All reports, or information submitted to the Director shall be signed (see 40 CFR-122.5)

20. Rights Not Affected

Nothing in this permit shall affect the permitter's right to appeal or seek a variance from applicable laws or regulations as allowed by law.

21. Severability

The provisions of this permit are severable, and if any provisions of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thoreby.



MISSION OF ERVIRONMERIAL QUALITY WATER POLLUTION CONTROL PROGRAM PO GOX 170 JEFFERSON CITY, MO 65102

FORM H - REQUEST FOR TERMINATION OF A GENERAL PERMIT

		······································				
PERMIT NUMBER	<u></u>					
MO —						
NAME OF FACILITY						
O ADDRESS	·					
20 OWNER						
ME	PHONE					
:	FAX					
ORESS CMY	STATE	210				
	<u></u>					
30 CONTINUING AUTHORITY	PHONE					
	FAX					
ORESS CITY	STATE	tie-				
·						
30 REASON FOR TEHMINATION REQUEST: (CHECK ONE)						
For industrial facilities, site activities have ceased and site closed and no s For any type of site, a site specific permit was obtained.	significant materials remain e	xposed to slorm water.				
Other reason (specify)						
						
	•					
	<u></u>					
4 00 T CERTIFY THAT I AM FAMILIAR WITH THE INFORMATION CONTAINED OF MY KNOWLEDGE AND BELIEF SUCH INFORMATION IS TRUE, COMPLET		DUEST, THAT TO THE 8				
NIME AND OFFICIAL TITLE (TYPE OR PRINT)	TELEPHONE NO	~ ~~ ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				
	\(\(\)					
	(AREA CODE)					

St. Louis County Department of Health License #418 Bridgeton Sanitary Landfill Charlie A. Dooley
County Executive



Dolores J. Gunn, MD
Director

June 21, 2005

CERTIFIED MAIL #7003 1010 0003 3204 6622

Mr. Rick Walker
Operations Manager
Bridgeton Landfill, LLC
13570 St. Charles Rock Road
Bridgeton, Missouri 63044

RE: Annual Renewal of Bridgeton Sanitary Landfill, LLC, 13570 St. Charles Rock Road, Bridgeton, Missouri 63044, License # 418 issued by the Saint Louis County Health Department.

Dear Ms. Douma;

The Saint Louis County Health Department (HD), Solid Waste Management Program has received your license renewal application and payment of the annual licensing fee for the Bridgeton Sanitary Landfill, LLC, Bridgeton, Missouri 63044.

Please find enclosed your renewed Operating License No. 418. This license will expire on June 22, 2006. This renewal contains the following condition as it relates to monthly gas and leachate monitoring:

CONDITIONS:

- 1. Within thirty (30) days of sampling, HD shall receive in writing, the results of the monthly perimeter gas monitoring system.
- 2. Within thirty (30) days of sampling, HD shall receive in writing, the results of the monthly leachate level monitoring.
- 3. All monthly leachate head readings shall be taken on the same day after the sumps have been shut off and wells have recharged, and shall be recorded in Mean Sea Level (MSL).

Mr. Rick Walker June 21, 2005 Page 2

Should you have any questions regarding the renewal of your sanitary landfill operating license, please contact Nicole Stiles at 314-615-7329 or Susan Taylor at 314-615-4116.

Sincerēly,

Dolores J. Gunn, MD

Director

Enclosure

DJG:SRT:cp

c: Allen Steinkamp, Environmental Manager, Bridgeton Landfill, LLC Richard Houchin, City of Bridgeton

Jim Bell, Chief of Engineering, MDNR-SWMP

Joe Trunko, Chief, Solid Waste Unit, MDNR-SLRO

Janet Williams, Director, Division of Environmental Protection

John Haasis, P.E., Manager, Solid Waste Management Program

Susan Taylor, Supervisor, Solid Waste Management Program

Nicole Stiles, Waste Specialist, Solid Waste Management Program



ENVIRONMENTAL PROTECTION DIVISION

SANITARY LANDFILL LICENSE

License No. 0418

Date: 06-21-2005

Owner: Bridgeton Landfill, LLC

Facility Name: Bridgeton Sanitary Landfill

is hereby granted permission to operate a sanitary landfill located at 13570 St. Charles Rock Road, Bridgeton, Missouri, 63044 under and in accordance with Chapter No. 607 of Saint Louis County and subject to the rules and regulations of the HEALTH DEPARTMENT.

Expiration Date: June 22, 2006

Issued at Clayton, Missouri
This twenty-first day of June, 2005

Division Director

Et William

Director

This license is issued subject to conditions in the Application and the conditions set forth in the department's letter of 06-21-2005 (attached) and is valid until suspended or revoked by the HEALTH DEPARTMENT. It must be kept posted in a conspicuous place on the premises for which it was issued.

St. Louis County Department of Health License #419: Bridgeton Demolition Landfill Charlie A. Dooley
County Executive



Dolores J. Gum, MD
Director

June 21, 2005

CERTIFIED MAIL #7003 1010 0003 3204 6639

Mr. Rick Walker
Operations Manager
Bridgeton Landfill, LLC
13570 St. Charles Rock Road
Bridgeton, Missouri 63044

RE: Annual Renewal of Bridgeton Demolition Landfill, LLC, 13570 St. Charles Rock Road, Bridgeton, Missouri 63044, License #419 issued by the Saint Louis County Health Department.

Dear Mr. Walker:

The Saint Louis County Health Department (HD), Solid Waste Management Program has received your license renewal application and payment of the annual licensing fee for the Bridgeton Demolition Landfill, LLC, Bridgeton, Missouri 63044.

Please find enclosed your renewed Operating License No. 419. This license will expire on June 22, 2006. This renewal contains the following condition as it relates to monthly gas monitoring:

Within thirty (30) days of sampling, HD shall receive in writing, the results of the monthly perimeter gas system monitoring.

This renewal contains no additional restrictions. Operational standards shall comply with provisions of the Saint Louis County Waste Management Code, Chapter 607. Renewal of this license does not constitute any Federal, State, or local approvals that may be required to operate your facility.

Mr. Rick Walker June 21, 2005 Page 2

Should you have any questions regarding the renewal of your demolition landfill operating license, please contact Nicole Stiles at 314-615-7329 or Susan Taylor at 314-615-4116.

Sincerely,

Dolores J. Gunn, MD

Director

Enclosure

DJG:SRT:cp

c: Allen Steinkamp, Environmental Mgr., Bridgeton Landfill, LLC Richard Houchin, City of Bridgeton

Jim Bell, Chief of Engineering, MDNR-SWMP

Joe Trunko, Chief, Solid Waste Unit, MDNR-SLRO

Janet Williams, Director, Division of Environmental Protection

John Haasis, P.E., Manager, Solid Waste Management Program

Susan Taylor, Supervisor, Solid Waste Management Program

Nicole Stiles, Waste Specialist, Solid Waste Management Program



ENVIRONMENTAL PROTECTION DIVISION

DEMOLITION LANDFILL LICENSE

License No. 0419

Date: 06-21-2005

Owner: Bridgeton Landfill, LLC

Facility Name: Bridgeton Demolition Landfill

is hereby granted permission to operate a demolition landfill located at 13570 St. Charles Rock Road, Bridgeton, Missouri, 63044 under and in accordance with Chapter No. 607 of Saint Louis County and subject to the rules and regulations of the HEALTH DEPARTMENT.

Expiration Date: June 22, 2006

Issued at Clayton, Missouri This twenty-first day of June, 2005

Division Director

Director

This license is issued subject to conditions in the Application and the conditions set forth in the department's letter of 06-21-2005 (attached) and is valid until suspended or revoked by the HEALTH DEPARTMENT. It must be kept posted in a conspicuous place on the premises for which it was issued.